G.R.S. IX—5]

Previous references.
Pte 96-21-(1-3)

1922
Pte

File No. 96/22

Serial Nos. 1, 3

Later references.
Legis 26-21-1

GENERAL AND REVENUE SECRETARIAT.

Serial Nos. 2

Part B for January 1923.

SUBJECT.

Administration Report of the Department for the year 1921-22

8&3)

To

The Hon. Director of Pte
Assistant Secretary
Deputy Secretary & Dirs

WD D.C 3148-207 dt. 16/4/22

Reviews 4

Printed on the Multigraph.

BgR

TELEGRAPHIC ADDRESS "INDUSTRIES"

In reply please refer to
No. Per 2 2 / 22-3.

Dte 91-22-1

ENCL. No. Three and four Cmc: Concerned copies.

OFFICE OF THE
DIRECTOR OF INDUSTRIES AND COMMERCE, IN MYSORE.

Bangalore...18th..September..1922.

FROM

P. G. D'SOUZA, ESQ., B.A., B.L.,
Director of Industries and Commerce in Mysore

Bangalore (India)

GEN. & REV. SECRET.
19 SEP 1922
INDUSTRIES & COMMERCE BRANCH.

To

The Secretary to the Government of Mysore,

General Department,

Bangalore.

SIR,

With reference to your No: I.C.1759/I&C. of the 16th instant, I have the honour to forward herewith the Administration Report of the Department for the year 1921-22 in triplicate.

I have the honour to be,

Sir,

Your most obedient servant,

DIRECTOR.

BV)

one copy has been sent to the Govt. Reports Section separately. Submitted with the remg. copies one for the Govt. & the other for submn to the Govt. member.

G. R. S. III-2]

General and Revenue Secretariat. | I. & C. File No. 91 of 1922

Serial No.

MR
19-9-22

2407-123.
23.9.22.

1) 1st Member

The Asst Secy with please speak to me about this

Rec'd
24-9-22

2) AS to
25/9/22

(3) Member's instructions taken personally
MR

7) A draft revision is put up for approval and issue.

MR
24.10.22

5) Placed

for consideration & approval

DEWAN'S OFFICE,
Recd. on NOV 2 1922
Reg. No. 2565.

Just
Member

to
26/10/22
MR

don't approved.

35-66-5-85
30.10.22

Rec'd
1.11.22
to

Rec'd
31.10.22

8) Put up personal before Hon'ble Council on
to 2/11/22
MR

Dewan.

NOTE—Contn. sheet.

G. R. S. III-2a]

DEWAN'S MINUTE

General and Revenue Secretariat. de File No. 91 1922-23

Date of submission	Date of Return	Date of issue of orders in the Secretariat	Remarks

2565 11) Secn.

Rec
3.4.22

12) K S to 3/11/22

13) May the Sanctions & Enquiries be submitted to the Dewan Sahib? MR
4/11/22.
GL (Sec.)

DEWAN'S OFFICE.
Recd. on NOV 4 1922
Reg. No. 2613

14) Dewan to 4/11/22
MR

15)
The return might have been condensed. Name made a few enquiries may be disposed of by circulation
4
8.11

Sanctioned by the Dewan's minute
First 17)

3837-222 Member Secn. to 8/11/22
8.11.22. Rec
9.4.22.
MR 8/11

WD 2314—GPB—2000—28-6-22

G. R. S. III-21

General and Revenue Secretariat.

File No. 91 of 1922.

Serial No.

DEWAN'S OFFICE
Recd. on NOV 10 1922
Reg. No. 2711

16) Copy the draft notification Council rule 3 proviso (i)(b) permit this procedure

Dewan 19) 9/11/22

The draft notification may issue

W 7/11

20) A-S B 13/11/22

21) Sd/- 13/11

3 To

3148-207 & 16.11.22

To

Offg Director of Industries and Commerce &

Heads of Departments

Deputy Commissioners of Districts

Reviews with certain observations the administration report on the working of the Industries and Commerce Department for the year 1921-22

NOTE—Contn. sheet.

G. R. S. III-2

General and Revenue Secretariat.

File No. 91 of 1922

Serial No.

22) Submd. with a D.F.N. submitting the review of the report on the working of the Dept. of I.C. for 1921-22.

23) The review for the previous year was not submd. to His Highness under the orders of the General Secy. The present D.F.N is for orders.

24) The D.F.N. may be approved. All reviews of Annual Reports have to be submitted to H.H. some before Issue ~~and~~ after Consideration in Council and some after issue. The present report comes under the latter category.

25.11.22

25/11/22

25)

Approved

25/11/22

DEWAN'S OFFICE.
Recd. on NOV 29 1922
Reg. No. 3153

4379-761
25.11.22
NOTE—Contn. sheet.

27)

D.F.N approved

Recd 27.11.22

28)

Dewan 28/11

Final Note by the First Member of Council.

Subject:— (20)

Report on the working of the Department of Industries and Commerce for the year 1921-22.

I submit herewith the report on the working of the Department of Industries and Commerce for the year 1921-22 together with the review of Government that issued on 16th November 1922 for His Highness' gracious perusal.

P Raghaviah Rao
25.11.22

27th November 1922. MEMBER OF COUNCIL.

Submitted to His Highness.

(31)

I submit herewith a Final Note by the First *Member of Council on the subject of* review and report on the working of the Department of Industries and Commerce during the year 1921-22

for His Highness' gracious ~~approval~~ perusal.

Dewan.

30 NOV 1922

Record of Cases submitted for the Orders of His Highness the Maharaja

Subject.

32) Review and report on the working of the Department of Industries and Commerce during the year 1921-22

461

33) *Order.*

~~K.R.M.P.~~
1/12/22

34)
Genl secy
4/12

2 DEC 1922

Report copy taken by Asst. Secy for refce.
4-12-22

A.S.
5/12/22

Joint Member
2/12/22

35)
4604-26
4.12.22

Secy Revenue
5.12.22

ADMINISTRATION REPORT OF THE DEPARTMENT OF INDUSTRIES AND COMMERCE FOR THE YEAR 1921-1922

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ADMINISTRATION :

I returned from my deputation to foreign countries and assumed charge of the office of the Director of Industries & Commerce on the 4th October 1921 from Mr. C. S. Bala-sundaram Iyer. Mr. K. H. Ramayya continued to be in charge of the Commercial section throughout the year. Mr. V. Ganesa Iyer was transferred on the 4th October 1921 to the College of Engineering as a temporary measure, but reverted to the Depart-ment on the 9th August 1922. Mr. N. Lakshminarasimhaiya, Superintendent, Metal Factory and Government Art Workshops was reverted to the Public Works Department on the transfer of the Metal Factory to private enterprise and the Art Workshop was amalgamated with the Central Industrial Workshop and placed in the charge of one Superintendent. Mr. B. G. Appadorai Mudali-ar and Mr. S. G. Sastry continued to be in charge of the In-dustrial Workshops and the Government Soap Factory. The latter Officer proceeded on leave for a month with effect from the 28th June 1922. Mr. S. V. Ramaswami, Superintendent of Industries, whose services were lent to the Mysore Premier Metal Factory reverted on the 1st June 1922. Mr. R. Anantha-subrahmanyam continued as Personal Assistant to Director. He also continued to attend to general and commercial work and was ~~also~~ in charge of the Art Litho Press, Aryan Hosiery Factory and the Arts and Crafts Depot. Mr. G. S. Girimaji Rau, continued to be in charge of the Mysore and Hassan Districts. Mr. Kadaba was in charge of the Kolar and Tumkur Districts.

On the transfer of Mr. S. V. Ramaswami to the Mysore Premier Metal Factory, Mr. C. R. Rama Rao, Assistant Superintend-ent of Industries, who was in charge of the Chitaldrug Distri-was placed in charge of the Shimoga and Kadur Districts in addi-tion to his own duties with headquarters at Shimoga.

The Officers of the Department have all worked with zeal

zeal and energy during the year. The curtailment of the grants by which the Department is now forced to spend less money direct -ly and the reduction of Taccavi Loans have suddenly altered the main lines of work in the Department. Some of them find a - little difficulty in re-adjusting themselves to the new conditions under which their work should consist more and more in investigations and assisting private enterprise in carrying out schemes without any direct aid from Government and furnishing Expert advice.

Mr. C. S. Balasundaram Iyer toured for 16 days and I toured for 63 days. Owing to complaints from several owners of plants and the public that the machinery supplied by the Department to many of the installations was not working satisfactorily the - position of the various concerns was examined in detail and - efforts were made to render them necessary assistance wherever the causes were remediable. In addition to this work local - resources and facilities for Industrial development were examin-ed as far as practicable in the course of the tours and Industri -al possibilities discussed and advice given to the people in-terested in Industries in the moffusil. Much of the time of the officers of the Department is devoted to interviews, examin-ations and discussion of proposals prepared by people who are in need of departmental help to complete their schemes and obtain necessary information and advice. The number of interviews so given by the Director comes to an average of 2 to 3 per day. The results of these interviews have been useful to the people in ~~shxxi~~ enabling them to obtain immediate assistance from the Department in selecting proper machinery, getting reliable - - quotations and obtaining sites and other assistance in develop-ing and establishing business connections. The total number of enquiries dealt with during the year was 150. The Correspond-ence in the office has risen from 10.25 (From Jo Registers Systems) at the end of the year 1920-1921 to 4167 (Under Disposal No Systems) in the year 1921-1922.

A great deal of my time was taken up during the year in

in framing proposals for the re-organisation of the Department. Overhauling The Concerns under the Deptt. also occupied much of my attention. Though the Department was first organised in the year 1912 the establishment has been continued on a temporary basis since - then and as there can be no two opinions regarding the need for a Department of Industries and Commerce it was felt that the time had arrived to make it permanent and the subject has been engaging the attention of Government for the past 2 years. Unfortunately, the decision to make the Department permanent was arrived at, at a time when owing to the financial stringency the grants that could be provided for the Department had to be considerably reduced. I did my best to fall in with the views of Government and keep only the minimum establishment necessary to carry on the ordinary work of the Department and render technical advice to persons intending to start industries. The curtailment of grants has necessitated considerable reduction in the activities of the Department and with the present depleted staff there is not much scope for many new investigations. Fortunately some of the investigations already made by the Department, together with the information I have been able to collect in foreign countries, and the facilities we have been able to provide to a few enterprising industrialists to start new industries will provide sufficient work for the department for at least a period of 2 years. Industrial development - being one of the most urgent problems it is necessary to provide the Department with adequate funds for new investigations and strengthen the staff as soon as the financial situation improves to cope with the increasing volume of work.

2. The work of the Department will be reviewed under six - main heads : - -

i. Demonstration factories maintained by the Department and other experimental and investigation work

ii. Industrial enterprises newly started and the - schemes under investigation.

iii. Administration of Taccavi Loans and condition of the concerns financed by the Department.

iv. Improvement of Commerce.

v. Development of Posts & Telegraphs

vi. Other miscellaneous work of the Department.

3. The financial aspects of these institutions are reviewed by Government every half year on the audited Balance sheets submitted to Government by the Comptroller to the Government of Mysore. The Department had 2 Demonstration factories, viz., the Metal Factory which was transferred to private enterprise as reported last year and the Soap Factory both of which have passed the experimental stage and are - - carried on strictly commercial lines. The Central Industrial Workshop, Government Art Workshop and the Weaving Factory are maintained primarily with the object of ascertaining what improvements are possible in local methods of production and providing the requirements of the people in regard to machinery, supply of parts &c., and training the people and subject to these limitations the concerns are now worked more or less on a self-supporting basis. A Department whose primary object is to demonstrate the possibilities of particular industries has to look at the question from a different standpoint from that of the ordinary manufacturer whose main object is to make the most profit. The factories are also inadequately equipped and the scale of operations not sufficiently large to produce the best results. In spite of these adverse factors it is satisfactory to note that both the Demonstration and the instructional factories have proved themselves now as sound - paying propositions and that it is possible to work them without loss.

DEMONSTRATION FACTORIES:

I append to this report detailed reports submitted by the Superintendents of these concerns for the information of Govern -ment. The salient features of the work of these institution -s during the last year are summarised below : -

The CENTRAL INDUSTRIAL WORKSHOP - This was expanded from the original small repairs workshop of the Public Works Department.

Due to this cause it could not be designed on the most efficient manner and a good deal of the buildings having been constructed and the machinery purchased during the war, the capital outlay is far in excess of the present value. Experiments in the construction of machinery led to considerable loss. The question of working the concern without loss in future was pressed on the Department by the Government as a result of which large retrenchments were effected during the year and radical changes introduced into the working. After considering the proposals of the department, Government have recently approved of the suggestions made by me to reduce the capital outlay on the concern to its actual present value as the book figure is very high due to abnormal circumstances under which the Institution was started. They have also approved of the writing off of the losses that have been incurred hitherto and permitted the future working of the concern to be carried on, released from such losses. The Government have also approved of my suggestions that the workshop should be utilised to a greater extent by the several departments of the State in getting their work done and instructions to this effect have been given, but the response has not been sufficient. It is also proposed to supply the workshop with some additional equipment costing about Rs 25,000/-. This Institution was also subjected to very severe examination by the Special Finance Committee. The usefulness of the Institution has been admitted by them and they have also accepted generally my proposals for its future working. The workshop has now a steady flow of orders from new Industrial concerns started in the State which is satisfactory evidence that the workshop has been able to inspire considerable confidence in regard to its ability to manufacture machinery. Besides the manufacture of Rice Mills and various kinds of machinery for oil and other factories, woollen mills, a large order has been placed for the manufacture of machinery for reeling silk costing nearly

nearly half a lakh of rupees. The main object of the Workshop is that it should be able to supply people with the machinery most required by them at the lowest cost possible and get repairs made without difficulty as there is no large private workshop within the State. At present attention is therefore concentrated primarily on the manufacture of machinery for Agricultural purposes and for dealing with the Agricultural products and arrangements are being made for the manufacture of Sugar Cane Mills, ploughs &c. Other machinery is undertaken only when any specific order is placed. Though foreign firms have reduced their prices of machinery in many cases to almost pre-War level, yet it is possible to manufacture machinery locally in almost all cases with profit. The manufacture of machinery when the raw material has to be imported, is not always economical but as soon as we can get iron locally manufactured, a workshop of this kind will present great facilities in carrying on new lines of manufacture and utilising a good portion of the output. It also offers a good training to persons engaged in Mechanical pursuits and many of the concerns newly started have been able to get trained men without difficulty in the State owing to the existence of this Institution. The Department, has, through the Workshop, been able to supply more than a dozen men to fill important positions in various factories started during the year and some of the trained mechanics of the Department, owing to the reduction of establishment, have set up small workshops and other businesses of their own and in this way a large addition was made during the year to the number of persons able to undertake mechanical work for private industries. The necessity to work the concern so as not to compete with private enterprise and the restrictions imposed by Government rules in purchases and other operations of the Department and advertisement considerably hamper the working of the concern. The great difficulty is to secure a steady supply of orders and develop the business

business side. Notwithstanding these limitations, the Central Industrial Workshop has proved itself the most valuable adjunct of the Department in rendering direct assistance to Industrial concerns in the State and carrying on several investi-gations of immediate practical utility. The total outturn of work in the Central Industrial Workshops in the year 1921-1922 was Rs 6,15,605 of which Rs ..... represents work done by way of repairs and for the manufacture of machinery. The actual working expenses during the year were 50,386/= and the gross profit was 29076 - the full success of the workshop and the reputation it has achieved are due to the efforts of Mr B.G.A. Madaliar who has shewn marked ability in organisation.

GOVERNMENT SOAP FACTORY - In the last year's administration report it had been stated that certain tenders were called for, for the transfer of the Government Soap Factory and they were under the consideration of Government. Government accepted the tender of one of these applicants but were obliged to withdraw their offer as they were not satisfied with the financial stability of the applicants. On further repre-sentations made to them by the firm Government re-considered the question and offered to transfer the concern in case adequate guarantees were given for the further development of the concern, but as the applicants failed to satisfy the conditions the offer was withdrawn. Government have again decided to invite fresh tenders and the concern will be made over to private enterprise if a Joint Stock Company with adequate capital is formed locally to take it over and develop it to its fullest extent. The protracted negotiations have greatly impeded the development of the Industry.. The Soap Factory has worked very successfully during the last year and as could be seen from the detailed report submitted as an enclosure to this/ Office No. GC 50 d/25-7-22 that during the last year this concern has made a net profit of Rs 23,933-7-3. The results reflect great credit on the Industrial Chemist who has been able to convert the previous years deficit into substantial profit. The returns would have been greater and the industry could have been made the source of a large income to the Department if certain proposals for expanding the factory which had been

been formulated by the Department more than three years ago and partially sanctioned by Government had been given effect to. The Mysore soaps have a very good reputation and the reports obtained from Experts in England have given the toilet soaps manufactured in the factory a high place among this class of articles and though our output is very limited we have been able to effect even foreign sales. The importance of the Soap Industry need not be emphasised at this stage. The Calicut Soap Works of the Madras Government is being developed to twice its original size. The experimental plant started by the Hyderabad Government has been handed over to a private enterprise viz., The Deccan Oil and Paint Works and I understand they have - - quadrupled the original plant. The Bengal Chemical Works have a Soap Factory and have also developed the concern. The firm of Lever Brothers have registered a Company with a large capital in Calcutta for the manufacture of soaps in India. The present Swadeshi Spirit which has given a great impetus to indigenous production combined with the high protective duty levied on imported soaps have rendered the prospects of the Industry good. The manufacture of soaps in Mysore has several advantages. The Department is therefore anxious that the results already achieved should lead to a further development of the Industry and no further time should be lost in starting a factory on a proper scale in the State. The success of the - Government Soap Factory has resulted in the establishment of several small concerns of the kind and our brands have been - copied both by people in Mysore and elsewhere. The methods employed by many of the local concerns are crude but assistance has been rendered by Department in improving the process if the parties have applied to them and the machinery required has been supplied from the workshop.

Other Chemical Works done by the Department - Owing to the want of a Laboratory, it has not been possible for the Industrial Chemist to carry on Chemical investigations on a large scale.

Proposals for starting a laboratory are pending with Government. A great deal of useful work has been done during the year in the extraction of Essential Oils from new substances such as Bellary Leaves, Devadariwood, Chigatamariwood and Chambalika Wood and one of these viz., Bellary leaves has yielded a new essential oil likely to command a good price and the matter is being further investigated. The Industrial Chemist is also working in co-operation with the Forest Department in developing and improving the Lac Industry. He is also carrying on some investigations as to the utilisation of wood distillation products. A scheme for the manufacture of Sulphuric acid was submitted to Government in the year 1919 and was held over. It is proposed to urge the Government to give effect to the scheme. The Industrial Chemist was given an opportunity to visit certain Chemical Works in the Madras and Bombay Presidencies and his reports are before Government.

GOVERNMENT WEAVING FACTORY - The detailed report submitted along with this indicates that this institution has succeeded in consolidating a good deal of the work already started and achieved some really important improvements during the year. The work done on the Power Looms has given very satisfactory results. Several new concerns have been started for manufacturing cloths of superior counts of Cotton and silk on power looms. Owing to the availability of cheap electric power it is possible even for small capitalist to take up this industry. As the private concerns already started with the help of the Department are likely to give good returns the matter of starting other factories has interested a number of people and there is a great likelihood of cotton and silk weaving being developed by means of such looms on a large scale by many independent concerns. Experimental work is carried on to solve the many problems that arise in using Mysore silk on these looms. The Department is now engaged in investigating the question of introducing a suitable power for silk manufacture

manufacture and a suitable loom is being designed in Europe. Steps are being taken to provide suitable preparatory machines for such concerns which it is arranged to ~~be~~ manufactured here as far as possible. Experimental work in the manufacture of silk saris on fly shuttle looms, the using of the fly shuttle looms with the jacquard appliances have been pursued. The machines designed primarily for the improvement of the hand-loom weaving industry in the Demonstration workshop attached to the factory have been worked under commercial conditions in the Government Weaving Factory and the results being satisfactory and machines worth about Rs 30,000/- were manufactured and supplied to private concerns. Large orders are being received from local Governments and persons outside the State. Steps have been taken to patent the machines. The Department took part in the All India Weaving Exhibition held at Patna and the several machines designed and manufactured in the work-shops were awarded the First Prize of Rs 1,100/-. Following on this, we have had enquiries for these machines from all-over India and there is every possibility of the work in the workshops for the manufacture of these machines being fully extended in the near future. The total value of woven goods manufactured in the factory during the year was Rs 82,000/-. In selecting articles for manufacture, attention is being paid to the introduction of new varieties and designs. The most important industry in Weaving is next to agriculture in which 80,000 persons are engaged and the weaving of every variety of cotton, woollen and silk fabrics is undertaken and the weavers show great skill. The scope for improvement & investigation is very great.

The question as to whether the Government Weaving Factory ought to be purely a commercial concern confining its attention to the manufacture of a class of goods mostly in demand or whether it should be used as a Central Institute where experimental work of various kinds have to be conducted is engaging my attention. I have already indicated in a note submitted in connection with the programme of work for the Department in the ensuing year, the lines on which I propose doing work in the Weaving Factory. The Handloom Weaving Industry is a very important one and continued attention to its develop-

-ment

development must be bestowed. The factory, in my opinion, should be used mostly for experimental work and also as a - training ground for persons who want to take up this industry. Considerable work has yet to be done and as I have explained in my note submitted to Government that it is desirable to start small well equipped factories in different parts of the State and thus spread the manufacturing portion of the work in several centres of the State so that improved methods may be demonstrated and popularised throughout the State and the Government Weaving Factory should take up new lines of - work such as the furnishing of new designs leaving a large - margin of profit in trying the improved appliances designed in the workshops under manufacturing conditions and finding out in what further ways the Weaving of cotton, silk and wool - could be improved. The introduction of filatures on a large scale for reeling silk has created new problems for the ordinary weaver does not know how to use this silk nor is it quite - suited to the class of fabrics he weaves. Experiments are - being conducted in order to enable the weavers of high class silk goods to utilise silk in certain portions of the fabric and in making borders and to give the material the necessary weight.

The Weaving Factory in its Demonstration and Experimental section has been responsible for the sale of Rs. 32,814/- worth of Loom parts and accessories. The Department also assisted in the starting of two Handloom Weaving Factories in the City of Bangalore and a silk twisting Factory worked by power. Arrangements are being made to start Weaving - Factories at Chikmaglur, Shimoga and other centres.

Two statements are appended to this report showing in detail the number of machines sold and their value and also the several centres in which the demonstration was conducted by the Demonstrators and the results achieved by them. They have fitted up 520 new fly shuttle looms during the year and

and this would bring up the total number of fly shuttle slays since the commencement to 4434. Ordinarily assuming that the majority of the looms are engaged in the manufacture of cheap cotton sadis of value of Rs 8/- or Rs 9/- per piece, it may be roughly stated that due to the introduction of these fly shuttle slays there has been an increased outturn of - - - Rs 20,00,000 The question has been raised as to whether it is merely sufficient to sell these fly shuttle slays or whether further work in relieving the indebtedness of the weavers - - should not be undertaken. Experience has shewn that much improvement in the Weaver's lot cannot be achieved unless they can be provided with capital to buy their yarn and also sufficient amount for their expenses till they can sell their products to the best of their advantage. Some attempts have been made to start Co-operative Societies in important Cities like Bangalore and Mysore and though these Co-operative Societies have been of some use to the Weavers in helping them to obtain advances on their manufactured goods they have not been able to undertake the supply of yarn and organise the industry. The establishment of Weavers' Stores through the aid of the Co-operative Societies has been undertaken, I understand, in other parts of India and I believe an attempt has also been made in this direction in the State in the past but has not met with success. The Bengal Government I believe contemplate opening Government Depots for the supply of warps. In the Punjab ~~Government~~ the Registrar of Joint Stock Companies has suggested in an article published in the Bombay Co-operative Quarterly that a combination of Joint Stock Enterprise and Co-operative Institutions would probably form the ideal condition for the successful working in this direction. It is impossible to improve the industry permanently until the problem of keeping the weaver fully at work in the manufacture of articles that give him the most profit and placing him in a position to sell them most advantageously to himself is solved. The question of

of the financing of weavers on which the further development of the industry rests is now engaging my attention and I am making a detailed study of the conditions and shall submit detailed proposals for necessary action during the coming year.

The Department has demonstrated the possibility of using fly shuttle looms for woollen weaving and work is being done in a Demonstration Factory at Hunsur. The introduction of such looms for this purpose on a large scale has not been possi-ble owing to the difficulty to get machine made yarn. The establishment of new Wool Spinning Mills in the State which has taken place during the year is likely to solve this diffi-culty. The Department is carrying on experiments for manu-facturing light weight rugs and also for milling and finishing the coarse blankets turned out by the ordinary weavers. At-tempts are also being made to develop the carpet weaving In-dustry. The designing of a suitable spindle for spinning hemp which is an important industry in certain parts of the State has also been taken up. Owing to want of staff not much work could be done in the improvement of dyeing. There are very skilful dyers in the State who have become experts in using both indigenous and synthetic dyes. Their methods are being carefully studied to see in what directions improve-ments could be undertaken. It is proposed to take advant-age of the facilities afforded by the new Mills in the State to carry on experiments in dyeing with their help as the con-cerns having received assistance from the Department in vari-ous ways have expressed their willingness to co-operate with the work of the Department. Both the Textile Assistant Mr Reddy and the foreman Mr Munivenkatappa an expert weaver possess great mecha-nical ingenuity and a special attention is being paid to design-ing new machines.

GOVERNMENT ART WORKSHOPS - With the transfer of the Government Metal Factory to private enterprise the question of the loca-tion of the Art Workshop which was carried on in conjunction with it had to be decided. Several alternative proposals were considered and finally it was decided to transfer the -

the Art Workshop to the Central Industrial Workshop where suitable accommodation has now been provided for it at a cost of Rs. 6.884/=. It was also put under the administrative charge of the Superintendent of Central Industrial Workshop. In the Superintendent's report enclosed herewith the limitations under which the Indtitutions has to work are clearly set forth. It is intended primarily as an educative Institution affording training and means of support for about 120 boys and unskilled men as it is not possible to induce the children of artizans to pass through the courses of Industrial Schools. It has succeeded in training a large number of persons belonging to classes not hitherto used to such occupations to do high class carving and inlaying work. The manufacture of lacquerware which was confined to Chennapatna has been introduced into Bangalore. Several new varieties of wood have been tested and the opportunities of converting many of them into articles of high value demonstrated. New designs have been introduced and also improvements in practice. The Institute has therefore so far accomplished very useful results. The institute suffers greatly owing to want of labour saving appliances and a seasoning kiln. Detailed proposals for the supply of additional equipment has been submitted to Government and their orders are awaited. As the commercial possibilities of the Industries carried on in the Workshops are great and the limitations under which the work is carried on seriously hampers the development of the Industry on a large commercial scale and providing a good market for the articles turned out, steps have been taken to interest a wealthy capitalist to start a concern to extend the production of such articles to the maximum limit. Orders for machinery have been placed and manufacturing operations are likely to be started during the year. As soon as private enterprise is able to exploit commercially the possibilities of the Industries on a commercial scale attention will be concentrated in the workshop in turning out articles that demand high artistic skill which are not affected by competitio

competition of machinemade articles and demonstrating new uses for Mysore woods. It may be interesting to note that the manufacture of pirns and bobbins for certain local mills has been undertaken from different varieties of suitable local woods in this workshop, and a large order has been received.

With the transfer of the control of the Technical Education to the Department of Industries it is my intention to correlate the work done in the several factories under the control of the department and the training afforded in the schools so that it might be possible for a student who undergoes training in any of the industrial schools to complete his education by working in one of the factories under commercial conditions and become a proficient workman by the time he leaves the workshop.

THE ARTS AND CRAFTS DEPOT - This concern continued to work on the same lines as before. Its monthly sales came to nearly Rs 4,000/- and as the articles sold are generally articles requiring high artistic skill the Department has been supplying a steady source of employment to a large number of skilled artisans in the State. The concern has now improved itself entirely self-supporting. The Department is able at present to meet only the demands of visitors and local residents. If a larger market can be opened by having branches for the Depot in Bombay and other large cities of India the sales can be increased several times and a larger number of artisans kept employed. Proposals for opening a branch in Bombay have been submitted to Government. The Depot has practically saved the art of the local artizans from extinction. Certain radical alterations in methods of work are also necessary. The Depot should have a suitable agency to distribute the work among the various workers throughout the State, to supervise and instruct the workmen and greater freedom of action in making advances and purchases. These questions as also the question of co-

co-ordinating the work of the Depot with that of the Art Workshop, Chamarajendra Technical Institute and the Industrial - - Schools at Chennapatna and Sagar and using all these Institutes to raise the standard of work and create a better market is - now engaging my attention.

DISTRICT INDUSTRIAL WORKSHOPS - Government had in their order No. 3005-55/Ic 44-16-2 dated 17. September 1917 approved of the starting of District Workshops in the several Districts of the State Under this scheme a Workshop was started in Shimoga in 1919 and has continued to do useful work. This Institution during the year executed 489 orders and the value of the work turned out amounted to Rs. 6,287/-. The expenses incurred in maintenance &c amounted to Rs. 4,700/-. It is therefore self-supporting. As there is some industrial activity in the Shimoga District and the people need much help in getting agricultural implements &c., the workshop meets a great desideratum. It is proposed to work it in conjunction with the Industrial School so that its pupils may be given a thorough practical training. Two other District workshops were also under erection during the - year and of these the one at Tumkur was completed and commenced work late in the year. The Institution being new has not been able to do very much work. I have recently in consultation with the President, District Board, suggested that all the works of the P. W. D., Water Supply and the Sanitary Department of - the District should be entrusted to this workshop and I am also arranging to have this Institution run as an adjunct of the - Central Industrial workshop so that it may be kept well supplied with work. The Kolar District Workshop could not be compet -ed owing to want of budget allotment, but, I propose, however, making a beginning this year. The Kadur District Board have agreed to give a grant of Rs. 2,500/- for buying an engine to - start a District Workshop in connection with the Industrial - - School, the other machinery being supplied by the Department. Efforts are being made to open similar workshops in other Dis-

District Headquarters. As it is not possible under present conditions to get suitable private agency to start such workshops in the Districts and the introduction of machinery for small industries without proper facilities for repairs retard their success it has become imperative for the Department to start these workshops in order to supply this want. As the District Industrial Schools should also have a workshop attached to them it is easy to utilise the facilities and arrange to meet the requirements of the local people without committing ourselves to any great expenditure. I hope to be able within the course of the year to have a workshop in almost every District Headquarters so that petty repairs and making of parts can be attended to as far as possible locally. The workshops will all be placed under proper supervision and will form a good nucleus for training workmen throughout the State. I have also given facilities for starting workshops to private individuals in Mysore, Kolar and other places.

SUGAR CANE MILLS - Mr. C. S. Balasundaram Iyer, my predecessor in office brought to the notice of Government in the last year's report the difficulties that have been encountered in the working of the Sugar cane installations. The work was resumed during the year though not by the department directly Mr. Guruva Reddi, who has an oil Engine and a Sugar Cane Crusher at Hudi and is able to command a large supply of cane undertook to purchase a megasse furnace erected by the Department if its usefulness was demonstrated to him. The Department worked it for two seasons. This year he himself undertook the working of the installation, the Department only lending a trained mechanic for the purpose. His charge for making jaggery from the Sugarcane supplied was about 5 annas a maund and this amountseems to have been sufficient to recoup his expenses. The total quantity manufactured during the year in this installation was 5,000. maunds of

of Jaggery working for 60 or 70 days. The plant is however set up in a place where there is little supply of cane which has to be brought from a distance of nearly five miles. The crusher is worn out and extraction is poor. I am trying to induce him to transfer the plant to a more suitable locality. The results of this installation are very encouraging and there can be no doubt that if a regular supply of cane can be arranged for, the installation can be worked very successfully with profit. It was stated in the last year's administration report that a portable sugar crushing plant was under manufacture. This was completed and arrangements made with Mr. McIssac who has a plot of about 4 or 5 acres of cane at Tavarakere to carry on the experiment of using the plant with a Fordson Tractor at his own cost. It is still premature to state how far the plant could commercially be a success as it could be worked only for a short period but the fact that he has offered to buy it shows that he is himself satisfied with the results. It is proposed to continue the investigation in the coming year.

Government sanctioned the starting of the work of Sugar cane crushing at Chennarayapatna late in the year and the work has just commenced. The quality of cane in this area is unfortunately very inferior and the milling results have not been satisfactory. The plant set up by the Department is also old and not efficient. Even as it is there has no difficulty in getting cane and it has been possible to make jaggery at a cost not much in excess of what is paid by the local people. The work in the installation is still proceeding and I shall submit a detailed report at the close of the season. Steps will be taken to introduce necessary improvements in the plant so that we may be able to show better results in the next season.

Sir Alfred Chatterton had also started a steam heated plant at Agaram for manufacturing jaggery. This was one

only partially tried and has been lying idle for the past four years. As it has certain features which would make it eminently suitable for certain areas if it can be worked with profit. I am now arranging to have it tested by a private gentleman.

Arrangements are also being made to manufacture bullock driven mills in the Workshop. It will thus be seen that the Department has again undertaken the necessary experiments to provide the raiyat with suitable machinery for - - dealing with cane and arrangements are being made to carry on further experiments with the different types of ~~xxx~~ plants through private agency which is able to arrange for the supply of cane more satisfactorily. In this connection I may be permitted to state that the impression that the Sugar Committee seems to have formed about these experiments are not correct, due to the fact, that they never attempted to get any information from the Department and their suggestions in regard to Mysore have not much practical weight.

INDUSTRIES UNDER INVESTIGATION :

4. The Industrial Geologist attached to the Department had submitted certain proposals to conduct the prospecting work regarding the availability of corundum. The work however could not be undertaken as no additional - allotment could be made available during the year. Government have just issued orders regarding the grant of certain blocks containing Kaolin for the starting of porcelain works to Messrs. V. Manickavelu Mudaliar & Sons to enable ~~him~~ them to start a Company for the purpose. A preliminary scheme has been prepared by the Experts employed by the Department and this has been supplied to Messrs. Manickavelu Mudaliar & Sons and further enquiries are being made on ~~his~~ their behalf regarding the supply of correct plans for the construction of kilns, purchase of machinery &c. No further investigation in - - mineral possibilities of the State could be undertaken as

as the services of the Industrial Geologist were terminated on the expiry of his contract with Government. The Department has been approached with a request for assistance to start the manufacture of Sodium Bichromate and the matter is under investigation. Government have also thrown open the Voblapur Limestone Deposits to be granted for starting Industries in lime products. A scheme is under preparation.

ALKALI WORKS - In the last year's report mention has been made of the work that had been done at Chamarajanagar by Mr. Aminudin Ali to whom some financial assistance was rendered by Government. As reported therein Mr. Aminudin Ali had come to the end of his resources and Government also decided not to render further assistance in the matter with the result that no further work could be undertaken by him and this venture has led to no result excepting that a certain quantity of Alkali earth collected by him has been left on our hands. The Industrial Chemist is hopeful of finding a sale for the finished product and during his deputation to Bombay had interviewed the Eastern Chemical Syndicate and has also submitted certain samples to Port Blair where there was an enquiry for the same. The Industrial Chemist has also suggested that the natural deposits in the State of Alkaline earth could be used in conjunction with some of the products of the wood - Distillation plant at Bhadravati. The question is under the consideration of the Board of Scientific Research and Advice. Efforts will be made to interest some private capitalists in the development of the Industry for the use of the alkaline earths.

S U G A R - Mention has been made in the last year's report that certain investigations were conducted and certain applications that were received for starting a Sugar Factory were under the consideration of Government. As it is not possible to provide a sufficiently large area for a factory under any of the existing works of n irrigation, none of the applications

applications could be complied with. The report of the Sugar Committee indicates that the possibilities of starting a sugar concern in Mysore are not very hopeful. The Department is however investigating at the instance of a private applicant whether it may not be possible to provide a sufficient land for a small factory owing about 3,000 acres at Sulekere.

I have already pointed out in an earlier part of the report that the more imperative question in Mysore is at present how to ~~solve the question of providing~~ provide the most economical and efficient machinery for dealing with areas of cane ranging from 50 to 150 acres, of which large blocks are available in the State than the starting of large factories which are likely to cause much economic unsettlement as all the available lands in Mysore are generally under private holding. If this problem is solved it would be easier to arrange to take the jaggery to a Central factory for refining and develop other industries. As soon as certain large irrigation works that are in course of construction are completed the question of reserving a sufficiently large block under them may be considered. The Department also proposes to investigate with the Co-operation of the Public Works Department the possibility of providing lands where water can be provided by means of pumping on a large scale for which there appears to be suitable sites in ~~every~~ many parts of the State.

FOREST INDUSTRIES - Owing to the very high cost of bringing bamboos to a central Factory and the fall in the price of Chemical pulp, the question of making bamboo pulp has been deferred. Meanwhile facilities have been given to test other suitable materials for making pulp. A detailed scheme has been prepared for the manufacture of straw board and efforts are being made to enlist private enterprise. Arrangements have been made to start a large furniture factory and

and experiments are being conducted to find uses for new and untried woods. Investigations will be made in regard to the utilisation of the more important minor forest products for industrial purposes and information collected as to available supplies.

NEW INDUSTRIAL SCHEMES FOR WHICH PLANS ARE BEING PREPARED

The Department has obtained detailed specifications and quotations for the following Industries : -

i. Manufacture of Glue
ii. Manufacture of Straw-board
iii. Silk Weaving
iv. Preparatory machines for above
v. Manufacture of matches
vi. Wool Spinning
vii. Manufacture of spun silk from silk waste
viii. Silk reeling with the aid of a Filature.
ix. Manufacture of Cement bricks
x. Establishment of bone manure and Coffee Curing.

The department is in touch with certain industrialists who have expressed an interest in these industries and have approached the department to collect all the necessary information. It is proposed in the ensuing year to concentrate attention on the starting of a few of these industries with the aid of private enterprise.

5. DEVELOPMENT OF MINOR INDUSTRIES - Next to Weaving the other important minor Industries in the State are silk reeling, Sandalwood and other carving, inlay work, Bell metal work, lacquerware, wood work, basket work, and shoe making. The great rise in the price of silk has given a stimulus to the growth of mulberry and the rearing of silk worms. Indigenous methods of reeling are very primitive and though the cost of reeling silk by these methods is very low compared to reeling by improved filatures, yet, due to want of uniformity in thickness of silk so reeled and its being too much broken and knotted it has not been possible to create a foreign market for the locally reeled silk. Owing to there being sufficient demand for all the silk produced locally no need for finding other markets has been experienced but we have almost - -

almost reached the limit to which silk production can be carried on if we are to rely solely on the South Indian - markets. The range of articles that may be produced with silk obtained under such conditions is rather limited. Efforts are being made to start an upto-date filature on a - large scale with private enterprise and the machinery is under construction. The demand for the silk produced by the local weavers will always be however so great that the industry is not likely to be materially affected by the - starting of a filature while the development of new markets is likely to stimulate the increase of cocoons. The machines introduced by the Department for doubling and twisting have greatly improved the industry. Steps are being taken to organise silk twisting itself as an independent operation devoted to it in separate concerns, thereby promoting greater division of labour and increasing production.

The Sandalwood carvers in the State are now organised in two centres viz., Sorab and Sagar - and their work is supervised with the aid of the Co-operative Societies. The Department has arranged to supply them with raw materials and find a market for the articles produced. As a result of this help rendered by the Department there is now a steady market which provided sufficient employment for all the - - people engaged in the industry and if a larger market can be provided by opening Sales Depot in Bombay and Colombo there should be no difficulty in keeping a larger number of men than are engaged at present in the industry. The Department has trained other classes of men than Gudigars for the work. The imrovements undertaken are the furnishing of new designs, using sandalwood with other ornamental woods and producing new artistic effects. Similar attempts are being made to improve inlay work. Arrangements have been made to use power driven lathes on a large scale for lacquerware - work. The lacquering of flat surfaces have been taken up.

Rattan work is being greatly developed and local canes are being used on a large scale. Arrangements have been made to instruct in rattan work, new Kumbi settlers in the Ghats and the Forest regions of the Sagar Taluk. Extensive experiments in improved methods are first tried in the Arts Workshop and the Chamarajendra Technical Institute and when satisfactory results are achieved arrangements are made to popularise them by securing orders and getting them executed by local workmen. The brass industry is also being improved by affording special facilities to multiply moulds and giving instruction in the production of hollow figures. A detailed survey is proposed to be made of these minor industries and the question of improving each taken up as a whole. Government having directed the ~~xxxx~~ closing of the Home Industries Institute, the Department has not been able to carry on much work in the improvement of Home industries but efforts have been made to prevent the work already done from disappearing by affording facilities to the people to obtain machinery on reasonable terms and inducing the instructors themselves to set up independent business. It is proposed to start a class for training in Home Industries in connection with the scheme of Industrial Education.

6. STATE AIDED CONCERNS - A separate report is submitted to Government through the Comptroller to the Government of Mysore showing the nature of assistance granted by Government and how far these have been utilised as per Government Order No.4909-21|9.Ind.18-1 dated 3.rd April 1918. I shall however, review in brief the working of these several concerns over which I exercise some control as a Government Director or which have been taken over by the Department for management. The Bangalore Silk, Woollen and Cotton Mills Ltd., This concern has two Government Directors on the Boadd. The bulk of the shares are held by the people outside the State. This concern is one of the most flourishing mills in Southern

Southern India paying large dividends and it is being considerably enlarged.

The Mysore Cotton and Silk Manufacturing Co. This has also a Government Director on the Board though he is not an officer of the Department. The Mill owing to efficient management is now paying very good returns and it is also being enlarged. The Managing Agents have started another mill known as the Minerva Mills for which Government have granted a scope.

The Mysore Tannery. This concern due unfortunately to the slump in the leather trade has not been able to maintain its previous record of declaring good dividends. The working of the concern has not, however, resulted in any loss and it is understood that the management is very hopeful of the situation being improved and they have also arranged to obtain the services of an expert from Europe to assist them in remedying matters. Government have arranged with the Government of India for the supply of duty rree salt to this concern, which is likely to improve its financial position.

The Sri Krishnarajendra Mills Ltd., The Director of Industries is an Ex-Officio Director in this concern to represent Palace interests. The erection of machinery and buildings is being rapidly completed and manufacturing operations are expected to commence next month.

The Mysore Pharmaceuticals Ld. No further improvement has been made in the working of the concern than that mentioned in the last year's Administration Report. Government have under consideration certain representations of the firm regarding the dirficulties it was labouring under due to its inability to import alcohol for its manufacturing purposes from places outside the State the price being much lower than that charged by the Government Distillery for Duty Free Alcohol.

The Mysore Economic Union - The negotiations mentioned in

the last year's report which the company was stated to have entered into with the Mysore Industrial Bank Ltd., were completed and certain orders for filter presses, tanks &c were placed with the Central Industrial Workshops by the Managing Agents. The concern, however, has not started work and a final notice, calling upon them to intimate as to when they would be able to start work, has been issued. It is doubtful whether with the present financial crisis it would be possible for this concern to find necessary funds to start work and the question as to the measures to be adopted to recover the Government Loan is under the consideration of the Department.

The Thirthahalli Tile Factory - Government had approved of my predecessor's suggestion to continue the management of the concern for a period of one year until a good class of tiles could be manufactured. With a view, however, to eventually transrer the management of the concern to the original owners, I called for two meetings of the Board of Directors and Share-holders and suggested that steps should be taken by them to take an active interest in the working of the concern and relieve the Government of the responsibility to continue the management indefinitely. Some of the Directors were agreeable to take over the concern under their management and I have called on them to take measures to discharge the Government loan and take over the management at a very early date. A careful enquiry into the cost of manufacture was undertaken and as a result of the close scrutiny exercised, reduction in the cost of manufacture by nearly 20 per cent on the original figures were effected. During the year 1,75,000 were manufactured and Rs. 87000/- worth of tiles were sold. Due to defect in the construction of the chimney and heavy rainfall a portion of the Chimney has collapsed and work had to be temporarily suspended. It cannot be denied that the whole concern has been carried on in a manner involving much waste

waste of money both in the original construction and subsequent management.

The Aryan Hosiery Factory - The factory continued to be under the management of the Department. During the year ~~lbs of yarn were purchased and~~ Rs. 25,180/-. worth of goods were manufactured. The sales during the year was Rs. 24,826/-. The sales are conducted through one of the local merchants and confined to the class of goods which are mostly in demand locally. Arrangements were made during the year to put - bleached goods on the market. The period of three years for which Government had originally undertook to manage the concern having expired, they have under their consideration the conditions under which the concern may be handed over to Mr. Karve and their final orders are awaited. This is also a concern which if it could have been developed with sufficient capital could have been placed in a very satisfactory position, but Government aid being limited it has not been able to show much improvement.

Art Litho Press - Mr. M. Shama Rao, Proprietor of this Institution was engaged during the year in completing the tank map work given to him by the Public Works Department. Till the close of the financial year he had executed about - - - Rs. 20,000/- worth of work and he hopes to complete the Government order on hand by the end of the calendar year. The - - question as to what steps should be taken to develop the - - business after the present work he has on hand is executed is engaging the attention of the Department.

The last three concerns have not justified the Government help that they have received . The machinery and - - equipment are inadequate. They have no resources for working capital. The management also leaves much to be desired. It is very unfortunate that when Government help should have enabled the promoters to develop the industry successfully,

successfully, the concerns have been thrown into the hands of Government.

ASSISTANCE TO PRIVATE ENTERPRISE; AND ADMINISTRATION OF TACCAVI LOANS

7. Government having restricted the grant of Taccavi Loans as to purely urgent cases the number of loans that were sanctioned during the year were very few.

The enclosed Statement No. 1 furnishes full details regarding the transactions under this head. At the beginning of the year 2 Hire Purchase and 2 Loan applications of a total value of Rs. 48,700/- were pending disposal. Loans and Hire purchase applications amounting to Rs. 3,500/- and Rs. 41,200/- respectively were sanctioned during the year. In addition to the arrears outstanding at the commencement of the year amounting to Rs. 89,648-2-6, a sum of Rs. 1,00,389-10-7 was brought on demand and a sum of Rs. 56,915-5-9 was recovered towards principal and Rs. 20,039-9-8 towards interest. The balance outstanding at the close of the year was Rs. 1,13,082-13-8. The reasons for such heavy arrears are - i) more than 2/3 of the amount represents loans given to some large industrial concerns referred to in the previous paragraph not coming strictly within the purview of the scheme of Taccavi Loans for Industries, which for various reasons have failed to work with profit, ii) Owing to the high price of crude oil and other causes the cost of working the machinery has increased greatly and some concession had to be shewn in many cases so that the concern may not be altogether crippled and forced to stop work in order to meet the Government demand, iii) some of the loans are more of the character of subsidies for experiments such as match making, glass bangle making, manufacture of Sodium Carbonate from Earthsalt &c. These do not seem to be recoverable.

The experience of the Department is that while loans granted for the development of small industries where the amount does not exceed Rs. 20,000/- as a rule lead to the development

development of the industry if the concern is properly select -ed and efforts are made to return it as soon as the concern yields a profit, in the case of larger concerns, the same incentive to produce the maximum of return with a minimum cost and make the concern pay seems wanting. The Department has of late been discouraging applications for large loans. The amount drawn from the Treasury ever since the introduction of the Taccavi Loans in September 1913 comes up to R$ 7,86,274/8/- and the amount recovered towards principal till now is - - R$ 3,40,712-0-11 and R$ 61,520-11-2 towards interest. Active steps are being adopted for the recovery of outstandings with due regard to the circumstances of each case.

In the last year's Administration Report mention has - been made by my predecessor in office that a detailed survey of the Industrial installations at work in the State waspro- posed to be conducted by the Officers of the Department. This enquiry was undertaken and a detailed report on the working of each of these installations giving the reason for success or failure in each case has been submitted to Government. Much of the information collected is of a confidential character and cannot be given in this report. But it will satisfy our present purpose if we state generally the results of such en- quiry. In the case of almost all private installations regu- lar accounts are seldom maintained and even when they are main tained they are not freely produced. It is not therefore - easy to ascertain the correct amount of profit or loss in any case but where the concern has been worked continuously and the owner has been able to run it successfully for a suffi- ciently long period it may be presumed that the concern has been yielding a sufficient profit. The rise in the price of machinery had rendered it possible for sometime to sell most of the plants for more than the original price even after con- siderable use. Though specific offers were made very few - persons availed themselves of this opportunity. They have

have preferred to keep the plant thus showing that they do not regard the concern as a burden to be got rid of. On the whole our investigation has confirmed the conclusion drawn in the last year's report that the failures alleged are greatly exaggerated and that where the concern is not working satisfactorily, it is not due to defects of machinery but to causes over which the Department has no control.

When the system of granting financial assistance to Industries was first introduced into the State, the loans were originally given mostly for the introduction of machinery, for the promotion of agriculture and for dealing with agricultural products such as pumping installations, rice mills, power driven sugar cane crushing installations, Oil Mills &c. A few loans were given to new industries such as Tile Factories, printing presses &c.

Purposes for which loans have been advanced

Some special loans were given to Joint Stock companies and other companies under peculiar conditions such as the Mysore Economic Union, Thirthahalli Tile Factory, the Mysore Pharmaceuticals Ltd., the Art Litho Press and the Aryan Hosiery Factory. These undertakings were started in the first instance without the agency of the Department and it became necessary to help them as they found it difficult to proceed beyond a certain stage, but even with such help, owing to lack of resources, defects of management etc., as already explained, the results in most cases have been disappointing.

In regard to enterprises for which the Taccavi loans are really intended i.e ordinary industrial concerns requiring a moderate capital outlay it will be convenient to deal with each class separately. In all there are about 29 pumping installations in the State and of these about 14 are working very satisfactorily. The success of these concerns is due to the fact that the installations are utilised in irrigating lands which are already in a high state of

PUMPING INSTALLATIONS

cultivation and the crops grown thereon are of commercial value. It may be stated also that on the whole the pumping plants in the Chitaldrug, Kolar and Tumkur Districts have proved very satisfactory chiefly due to the fact that they are used for supplying water to garden crops. When these installations were first started crude oil was cheap and the engines supplied worked mostly by crude oil.

In the majority of pumping installations the motive power is supplied mainly by crude oil engines manufactured by Hornsby Ackroyd and the pumps used are Rees Roturbo Pumps of 3" diameter or of larger sizes according to the quantity of water that has to be pumped. In a few instances Suction Gas Plants have also been erected and engines of other makes such as Avance have also been tried. Owing to the high cost of crude oil, there is little chance of profit unless the water supply is sufficient to irrigate a fairly large area and the crops raised are of high commercial value. Suction Gas Engines are cheaper in operation but the initial cost is high and no suitable type of small units has been evolved.

These pumping installations work efficiently when the area irrigated is large enough and the proprietor has sufficient capital. But they are not suited to small holdings where the area to be irrigated is less than 10 acres. The designing of a suitable type of engine and pump to meet the requirements of the ordinary agriculturist which could be had at a fairly low price and the cost of working it would not exceed the amount ordinarily spent in using bullock power is engaging the attention of the Department. Recently in consultation with Sir Alfred Chatterton arrangements have been made to obtain a 2 H.P. Suction Gas Plant coupled directly to a pump and if this serves the needs of the raiyats it will help us to solve the problem of providing an efficient method of irrigation by mechanical power within the reach of

of the proprietors of small holdings.

In nearly every case intending owners of installation plants were supplied in advance with information as to the area required to be irrigated, in order to work the plant profitably, probable cost of irrigation, but in many cases, unfortunately, the departmental officers did not themselves investigate the cases before putting up the plant as to how far these conditions could be satisfied. For the past two years therefore the department has followed a different procedure in regard to pumping installations. Applicants have been clearly informed in each case of the conditions needed to make the concern a success and loans have been recommended only in cases in which there was an assurance that the concern could be worked with profit. Except in the case of persons who are able to keep regular accounts and are in a position to determine the exact limit of expenditure which each class of crop, can bear on account of irrigation and work the installation on commercial methods, the department does not consider it desirable to encourage others to launch out such enterprises. The wells ordinarily sunk by the raiyats have not sufficient depth to yield a good supply of water. The Department has obtained an Aster Pumping Set which is very useful in the excavation of irrigation wells and this pumping set is given on hire to persons who desire to sink large wells and are required to go sufficiently lower down. Such help was rendered in the case of 6 wells last year. For smaller wells the Department has a Pulsometer Pump. The starting of new pumping installations had to be postponed owing to the adverse conditions referred to above. But it is proposed to resume the work of selecting suitable sites and carrying further investigations. Soil conditions also present several difficulties in building up wells. These

These problems are also being studied.

Rice Mills.

The next class of concerns for the development of which the department has rendered much assistance are Rice Mills.

There are in all 27 Rice Mills in the State which have derived direct financial assistance from Government and 19 others have been started without such assistance. Prior to 1913 before the department undertook the development of rice mills, the number of these concerns in the State was only 3.(3) These installations have been most successful in the City of Mysore where conditions are most favourable for their success as Mysore is both the largest centre for paddy in the State and has a good market for rice. The mills are thus able to get sufficient paddy for milling on hire and do not therefore require much additional capital for buying paddy. The rice mills in Bangalore are fewer in number but some of them are equally successful. The recent increase in the electric rates has prejudicially affected the smaller concerns, but even with these high rates there is good margin for profit. Shimoga is another centre where there has been a remarkable development of rice-mills recently. Similar concerns have yielded satisfactory results in the Hassan and Chittaldrug Districts where there is a good supply of paddy. Where the concerns have been started in some main centre of the State through which large stocks of paddy are imported and where there is sufficient working capital to buy paddy if required, they have proved a success. The business factor has been the main determining element in the success of these concerns.

Rice Mills in the State are mostly individual or proprietory concerns. Only one has been started by a Joint Stock Company at Hole-narasipur but work has not been started owing to indifference on the part of the Directors and Share-holders. In the case of several partnership concerns also quarrels among the partners have seriously affected the success

success of many of them and the other two concerns were helped in other ways. An enterprising merchant has placed an order for a 8 cwt. Rice Mill in the Workshop. The machinery is complete and both in point of cost and efficiency this rice mill compares favourably with imported rice mills. Four other schemes are ready to be put into execution but as the parties want some financial assistance from Government there has been a little delay in giving effect to these proposals. Of the rice mills started with the help of the Department only in 6 cases the concerns have not been able to work continuously as they have not sufficient working capital. The localities are also not suitable. Efforts are being made to transfer the plants to persons having more resources and places where local conditions are much favourable.

Through the agency of the rice mills started by the department about 15,000 tons of 350,000 bags of rice are milled in the State every year and this represents a net profit of nearly 1½ lakhs of rupees to those engaged in the industry.

Flour Mills Somewhat allied to the rice mills are the flour mills started with the aid of the department. The flour mills introduced are of two types -(i) ~~(one)~~ installation of large units (ii) ~~(two)~~ small grinding mills used mostly for the grinding of wheat, ragi, Cholam, to supply the people of the neighbourhood. The former have been started in large cities and the latter in various mofussil centres and also in some parts of large towns as well. Before this work was undertaken there were only 2 large flour mills in the City of Bangalore. Now 4 additional flour mills have been started at Bangalore. Beside these there are 4 small flour mills at Mysore, 1 at Davangere 1 at Chitaldrug 1 at Tumkur and 1 at Rampur in the Shimoga District. These are all working satisfactorily.

The Flour mill at Kolar has been transferred to Bowringpet owing to want of sufficient work. It is also not thriving there and the owner proposes to transfer it to Bangalore. Experience has shown that under present conditions unless the mills have sufficient capital to be able to buy the grain and sell the flour and do not depend merely upon milling charges, they are not likely to be able to work at a profit.

Oil machinery. The Department has achieved the most satisfactory results in the development of the oil milling industry in the State. The usefulness of the Anderson Oil Expeller which had failed to yield good results in many parts of India was first - - successfully demonstrated by the Department. There are 3 Anderson Oil Expellers at work - 2 in the City of Bangalore and one in the town of Davangere and these on an average produce about 600 tons of oil per annum and the concerns are managed successfully. It is likely that another plant of this type will begin operation in the course of the year. The Department has also assisted in the introduction of six smaller installations consisting of rotary oil mills. Of these 2 in the City of Bangalore, 2 in the City of Mysore and 1 in the town of Tumkur are working satisfactorily. The concern at Chickmagalore which is part of a plant consisting of a Coffee Huller, a rice and a flour mill is not working satisfactorily due to financial causes. The Department is now investigating the question of the introduction of suitable hydraulic presses of small sizes for oil pressing and the adoption of improved processes.

Decorticators & Gins. Among other small machines introduced by the Department in dealing with agricultural products may be mentioned groundnut decorticators - of which two are in use and soapnut disintegrators - 6 in number and the introduction of small gins in the interior parts of the Chitaldrug and Mysore Districts; all these concerns are working satisfactorily.

The Department has assisted in the establishment of a large Ginning Factory at Chitaldrug which owing to the failure of the cotton crop in the Chitaldrug District during the present year has been somewhat handicapped.

Tile Factories The assistance given by the Department for the development of the Tile Industry in the State has also brought upon it a certain amount of unfavourable criticism. This is due chiefly to the experience of the Thirthahalli Tile Factory the failure of which, is due to causes for which the Department is not directly responsible. Before the Department undertook the encouragement of such factories which are needed to supply one of the primary wants of the people, - there was one large factory in the City of Bangalore - The City Brick and Tile Works - a small factory run as an adjunct to the Technical Institute in Mysore, two small tile factories at Sringeri and Sagar and a few presses in some parts of the State. The Department was also able to design a rectangular circular down draught kiln costing - about Rs. 7,000/- to Rs. 8,000/- and four such kilns have been erected by the Department at Mysore, Tumkur, Kolar and Thirthahalli. The first three concerns are working satisfactorily and the introduction of similar kilns in other parts of the State is likely to give a great impetus to the Industry. Arrangements are being made to start another large tile factory at Tumkur where the clay seems to be particularly suitable. The Department has also rendered financial assistance to the two factories at Sagar. Local dissensions and other causes have stood in the way of their continuous working and efforts are being made to effect an - amalgamation.

Having regard to the good margin of profit such concerns yield due to the high price of tiles as compared with the - manufacturing cost a large number of such concerns have - spring up in various parts of the State. Owing to the ig-

norance

ignorance of the promoters of such concerns as to the require-ments of an efficient kiln and the facts that the construction and working have been left to some workmen picked up from a Tile Factory, on the West Coast, that the clay was not properly tested, that the adequacy of its supply was not sufficiently investigated and that most of these undertakings have not sufficient capital, many of them have not been successful. The problem of organising the industry properly and of developing it further so that a great part of all local requirements may be satisfied by the factories within the State has therefore been taken up by the Department.

Printing Presses & other Miscellaneous Work.

The Department has also promoted the development of printing in the State and two presses in the mofussil at Tumkur and Shimoga owe their existence to the help of the Department. Assistance has also been rendered to 4 presses at Bangalore, all of which are found to be working satisfactorily.

Among other industries helped by the Department are the starting of a Furniture factory at Bangalore and Davengere and of Toy Works at Mysore, and development of Photography. These concerns have just begun to overcome the initial difficulties.

A Button Factory started by the Department was handed over to private enterprise but owing to the unwillingness of the Expert to render to the concern the utmost help he could, the venture did not prove a success. The machinery imported for the Button factory is now used in making toys and lacquer-ware articles and as it is difficult to compete with imported buttons attention has been concentrated on developing the lines of work which are proving remunerative.

Loans of the Nature of Subsidies for Experiments

Another class of loans given by the Department is really of the nature of subsidies to local people for carrying on certain experiments in industries. Among these may be class-

ed

classed the loan of Rs. 2,500/- to Mr. Channaveerappa to develop the Glass Bangle Industry, Rs. 4,400/- to Mr. Krishnamurthy Rao for manufacturing matches and candles and Rs. 5,000/- to Mr. Aminudin Ali for the manufacture of Sodium Carbonate out of Alkaline Earth. In all these cases, the Department from the beginning entertained great doubts as to the possibilities of success but as it was considered that such experiments deserved encouragement even though they might not succeed, the department afforded them every facility. Though there is a good likelihood of these industries being developed, if taken up by people with adequate financial resources and technical knowledge the result so far achieved have not proved satisfactory.

Small Industries Consuming about 6000 H.P. been developed through Taccavi System.

The facts given above clearly show that the system of Taccavi Loans has been of great benefit in the development of small industries in the State. During the last ten years of which the Department has been in existence, the number of concerns using motive power has increased by 177 and the total H. P. in these installations is 5,700.Of This, the concerns that use electric power number only 80.

Thus the people of the State have been able to use nearly 6,000 H.P. generated by Oil Engines, Steam Engines and Suction Gas Engines. Industrial concerns of a small size where the capital does not exceed Rs. 50,000/- are most successful when they belong to individuals and where the capital is larger, partnerships and Joint Stock concerns are more suitable but success entirely depends upon the concern being able to command the services of a capable Manager and the harmony and the Co-operation existing among the partners and shareholders. Industrial concerns run by Co-operative Societies have not been quite successful, as the methods adopted by such societies even under efficient management are not suited to the Management of Industrial undertakings. Conditions in recent years have also been unfavourable to normal development. Prices

Prices have been abnormal and the element of speculation and uncertainty has been a disturbing factor everywhere. In - ppite of all these, the people have awakened to the advantage of Industrial development and the successes that have been ach- h ieved have had a most stimulating influence and entirely counteracted the effects of failure. With the experience which the Department has gained and the more favourable atmosphere for the industrial development now prevailing, the system of Taccavi loans is likely to serve as a most useful factor in stimulating the development of the resources of the people. I have on several occasions urged on the Government the need to continue the system of Taccavi Loans and - provide adequate funds and assured Government that we have now reached a stage in which it is possible to render help absolutely without any risk of loss. In order to meet the need of small industries at least a sum of Rs. 1,00,000/- is necessary in addition to the amount now allotted annually.

VIII

ERECTION OF MACHINERY AND ASSISTANCE TO PRIVATE ENTERPRISE

The Installations that were taken up for execution in the year were . 9 (nine) . . and out of which . 5 . . have been completed and handed over. Apart from the erection of the machinery purchased by the Department and fitted up at the request of the owners, the Department has had several requests for the loan of the services of their - officers and the trained men for assisting private industrial concerns. The Mysore Premier Metal Factory had till recently one of our officers as Superintendent on loan and the - Pioneer Industrials have been helped to obtain necessary - foremen etc., and another Mechanic's services have been lent to the Proprietor of an Oil Mill at Davengere. The Department has also rendered the necessary assistance to the Minerva Mills and the New Pioneer Industrials in securing for them sites and also in obtaining access to them.

IX

PROSPECTS OF NEW INDUSTRIES

Owing to the abnormal financial stringency that prevail-

prevailing no new big floatations of big concerns were noticeable during the year. But several of the institutions which was started during the previous year commenced work and among these mention might be made of the Kaiser-i-hind Woollen Mills which was started by Mr. Syed Ismail of the New Pioneer Industrials Ltd. This concern has started a Woollen Factory for the manufacture of rugs and carpets and have invested nearly Rs 4,00,000/- on plants and buildings. Further expansions are contemplated. Messrs. B. K. Subbaiah Chetty & Sons who were the pioneers in this business have been enlarging the plant. Both these concerns have been availing themselves freely of Departmental help and the Central Industrial Workshop has been very useful in enabling them to get several parts of their machinery locally. The success of these concerns has excited much interest in this business and some other schemes of a similar kind are under investigation. The Sri Krishnarajendra Mills are nearly completed the erection of the plant the business. Mr. V. Manickvelu Mudaliar's Woollen Mills are also under erection and it is expected that they will be able to start work in the near future. The Bangalore Spinning and Weaving Mills have under contemplation, it is understood, to start almost immediately a Weaving shed with about 100 looms and their request to have the water facilities tested is under investigation. The Gunjur Fibre Co. propose to extend their business by securing a much larger plot of land for the cultivation of Sisal hemp and have approached the Department for necessary help. The Mysore Development Syndicate have completed the factory for the manufacture of Asbestos and the operations of the Essenflour company have been greatly expanded. The Scheme for the manufacture of whitelead is making rapid progress. The Mysore Paints have started operations on a larger scale. Mr.Vyasa Rao formerly employed as Industrial Geologist has started a concern for the manufacture of fire and other bricks and one of the deposits of kaolin held by the Department has been

been relinquished in favour of the Company. I have already referred to the arrangements made by the Department to start a furniture factory on a large scale. Steps have also been taken to introduce the manufacture of Gold Lace. Machinery for a large filature is being constructed in the C.I.Workshop and a plant with 100 basins is likely to be erected in the course of the year. In spite of the adversed financial conditions there has been considerable industrial activity. There are other schemes which are being investigated and the present year is likely to witness the accomplishment of a few others.

X Government early in the year transfe

connection with the opening of new post and telegraph offices

POST AND TELEGRAPHS. to the Director of Industries. I have been in close touch with the Presidents of District Boards and also with the two Superintendents of Post Offices and I am taking the necessary steps to see that the distribution of post offices serves the greatest convenience of the people. The main items that have engaged our attention during the year under this head are the utilisation of motor bus service for carrying of mails instead of jutkas, opening of new telegraph offices at Hole-narasipur, Malavalli, Belur, Jagalur Chicknayakanahalli, Chennagiri, Chellakere and T.Narasipur, and closing down of certain of the experimental offices which are not necessary on adminstrative grounds, the transfer of some of the offices to other centres. The concentration of all correspondence relating to post offices and telegraphs with the Director of Industries has been of material help in getting many outstanding questions expeditiously settled and effecting suitable re-adjustments and expansions most conducive to the interests of the people. I am glad to acknowledge that I have received very hearty co-operation from the Superintendents of Post Offices and the Postal - -

Postal authorities have shown a ready willingness to meet all reasonable demands. Increase of salaries and other causes have greatly enhanced expenditure in the Postal Department and difficulty is experienced in complying with the demands of the people for additional facilities owing to financial limitations. The whole situation is being carefully examined and I have formulated certain proposals for determining general principles on which such extensions should be undertaken.

WEIGHTS AND MEASURES.

XI Steps have been taken to make an adequate supply of weights available. Negotiations are being carried on with the Premier Metal Factory for the manufacture of seamless measures through them. I have hopes that during the coming year we shall be able to make satisfactory arrangements for the supply of weights and measures required by the people.

LABOUR:

XII During the year there has been no appreciable change in the attitude of the labour and there have been no strikes nor any other remarkable incidents. An anticipated strike in the Mysore Tannery was averted by the Managing Agents. The wages of labour are still high. An ordinary unskilled labour is able to get 10 annas a day and the skilled labourer from 1 rupee to 2 rupees per day. There is no lack of employment. The housing conditions of labour are still unsatisfactory. Certain industrial concerns that are anxious to provide - - accommodation for their labour have some difficulty in securing suitable sites. Many of the old established concerns have made good profits and if sites are made available near the mills at a reasonable price it will be possible to arrange for the construction of suitable buildings. Requests made to the Department in this respect have always received my personal attention. The examination of the existing laws and rules in regard to factories and labour and bringing them into a line with the improvements proposed in British India is now engaging the attention of the Department.

13. Till the 1st July 1922 the Commercial section was under a separate Deputy Director who has been since transferred from the Department. The usual review of the Railborne Trade Statistics has been prepared in the Section. Some Statistics have been compiled in regard to Road-borne Statistics. The section attended to several miscellaneous enquiries. After it came under my direct charge on the 1st July 1922 a thorough re-organisation has been attempted. The Commercial Museum which required to be better arranged has been temporarily closed. The Bureau of Commercial Information is being developed and steps are being taken to study the course of trade in each important commodity and collect information of commercial value systematically and make it available to the people. The library is being improved. The Commercial work is now being attended to by my personal Assistant Mr. Ramanatha Subrahmanyam, whose long association with the Department and intimate relations with Commercial men peculiarly qualify him for that work.

COMMERCIAL WORK

The Agricultural conditions were fairly satisfactory but the violent fluctuations in price, the unsteadiness in exchange, the financial stringency have affected trade. Heavy speculation chiefly in piece goods has caused severe losses. The total value of imports and exports during the year 20-21 were . . . 26.64 crores respectively as against 28.93 . . crores in the previous year. The failure of cotton crop greatly affected the Chitaldrug District. The commodities in which the trade was good were miscellaneous oil seeds copra & jaggery The adverse conditions of trade have severely checked all enterprises during the year.

C O N C L U S I O N

14. The Department has now been in existence for more than a decade and disappointment is some times expressed that the results have been poor. The Department has been instrumental in introducing machinery on a fairly large scale throughout the State for dealing with agricultural products and the experience that it has gained has now placed it in a unique position to render advice in regard to such industries. It has introduced fly shuttle looms ~~on a scale much higher~~

looms for handloom weaving on a scale much higher than anywhere else in British India designed new machinery for all processes connected with the Industry and introduced improvements in weaving which have resulted in much profit to the people of the State. It has secured a steady market for the articles manufactured by the artizans and helped the industries from being extinct. A large number of men have been trained in these industries in new designs, new methods of manufacture and the articles have been introduced. It has been instrumental in starting several large industries in the State which owe their inception in some way or other to its initiative. It maintains a well developed workshop which is able to undertake the manufacture of machinery of various kinds and the training of the people on a large scale. It has created a desire for industrial development and itsassistance is sought more and more by the people in giving effect to their schemes. It has also been collecting information systematically on industrial schemes and subjects. Thus even its positive accomplishments are large. The present conditions are not altogether favourable to industrial Development. Nevertheless, steady progress is being made in investigating new schemes and keeping up the interests of the people and enlisting men of the proper type in the development of Industry. On assuming charge I made a detailed study of industrial conditions throughout the State and submitted a programme of work to Government which has been approved of by them. The reduction of grants is likely to affect the activities of the Department but the future is hopeful and there is ample work for the Department to keep it fully engaged for several years to come.

Director of Industries

STATEMENT - I.

STATEMENT OF LOANS APPLIED FOR, SANCTIONED AND OTHERWISE DISPOSED OF DURING THE YEAR 1921 - 1922.

S.No:	Particulars.	No: of applications.			Amount.		Total.
		H.P.	Loan.	Total.	H.P.	Loan.	
1.	2.	3	4	5	6	7	8
1.	Applications pending at the beginning of 1921-1922	2	2	4	43,200	5,500	48,700
2.	Received during the year 1921-1922	17	3	20	63,670	4,000	67,670
3.	Difference between the amount applied for and sanctioned	-	-	-	-	-	-
4.	Total applications for disposal	19	5	24	1,06,870	9,500	1,16,370
5.	Applications sanctioned by the Director	-	-	-	-	-	-
6.	Applications sanctioned by the Chairman, Board of Industries and Commerce and Government.	10	2	12	41,200	3,500	44,700
7.	Applications pending sanction and enquiry.	2	-	2	23,200	-	23,200
8.	Applications rejected or withdrawn.	7	3	10	42,470	6,000	48,470
9.	Total.	19	5	24	1,06,870	9,500	1,16,370
10.	Applications sanctioned but subsequently withdrawn or cancelled.	1	-	1	2,200	-	2,200
11.	Total applications sanctioned during the year 1921-22 (Columns 5,6,10 and 11)	9	2	11	39,000	3,500	42,500

Bangalore,
Dated the th: September 1922.

Ramantha Subramanyam
DIRECTOR OF INDUSTRIES AND COMMERCE IN MYSORE.

BV-5)

STATEMENT - II.

LIST OF INSTALLATIONS COMPLETED DURING THE YEAR 1921-1922.

S.No:	District.	Taluk.	Village.	Name of the party.	Description of plant.	Approximate cost. Rs	Remarks
1.	Chitaldrug	Chellakere	Chellakere.	Mr.Anandathirtha Rao.	Rice Mill.	15,000	H.P.
2.	Mysore	Seringapatam	Kirangur	Mr.Deviah	Rice Mill	9,000	H.P.
3.	Shimoga	Sagar	Sagar	Mr.Vasudevasett	Rice Mill	3,700	H.P.
4.	Kadur	Chickmagalore	Chickmaglore	Mr.Abdul Mazeed Sab.	Rotary oil Mills.	2,500	H.P.
5.	Chitaldrug	Davangere	Davangere	Mr.Basavannappa	Gin	5,000	H.P.
6.	Bangalore	Bangalore	Bangalore	Mr.G.S.Mallappa	Oil Mill	3,000	H.P.
7.	Bangalore	Bangalore	Bangalore	Mr.V.S.Sambasivier.	Manufacture of paints	3,000 for grinders & mixtures.HP. 4,000 for Electric Motor.	
8.	Tumkur	Gubbi	Chelur	Mr.Seshappachetty	Weaving Factory	2,500	Loan.
9.	Shimoga	Shimoga	Shimoga	Mr.H.V.Narayan Rao	For purchasing a gas engine.	2,400	H.P.
10.	Kolar	Kolar	Kolar	Mr.Venkatasawmi	Workshop	1,000	Loan.
11.	Bangalore	Bangalore	Bangalore	Mr. S.M.Ismail	Motor for a mortar Mill.	1,600	H.P.

Bangalore,
Dated the 17th September 1922.

R. Anantha Subramanyam
DIRECTOR OF INDUSTRIES AND COMMERCE
IN MYSORE.

BV-6,

STATEMENT NO: III.

LIST OF INSTALLATIONS PENDING AT THE END OF THE YEAR 1921-1922.

S.No:	District.	Taluk.	Village.	Name of the party.	Description of the plant.	Approximate cost.	Remarks.
						Rs.	
1.	Bangalore	Bangalore	Bangalore	Mr.Padmanabiah.	Oil Expeller.	25,000.	H.P.
2.	Tumkur	Tumkur	Tumkur	Mr.M.L.Shame Gowda.	Rice Mill	15,000.	Loan.
3.	"	"	"	The Mysore Economic Union.	Dhupa seeds oil plant.	30,000.	Loan.
4.	Shimoga	Shimoga	Shimoga	Mr.Venkappiah	Printing Press	1,500.	H.P.
5.	Mysore	Chamaraj-nagar.	Chamaraj-nagar.	Mr.Aminuddin Ali	Manufacture of Sodium carbonate.	5,000.	Loan.
6.	Kolar	Chickka-ballapur	Chickka-ballapur.	Mr. G.Naranappa.	Silk Twisting Machine.	500.	H.P.
7.	Shimoga	Shimoga	Shimoga	Mr.Zinullabuddinsab	Rice Mill.	16,000.	H.P.
8.	Bangalore	Bangalore	Bangalore	Mr.G.V.Narasimah Iyengar.	Electric Motor & Dynamo.	2,000.	H.P.
9.	Mysore	Mysore	Mysore	Mr.Mylariah.	Power Loom.	2,000.	H.P.

Bangalore,
Dated the 17th September 1922.

R. Ananthakrishnan Ansan
for DIRECTOR OF INDUSTRIES AND COMMERCE IN MYSORE.

BV-6

STATEMENT NO: IV.

STATEMENT SHOWING THE TREASURY DRAWINGS AND PAYMENTS TOWARDS THE LOANS.

	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.	1921-22.	Total.
	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
Net amount drawn -- from the Treasury.	55528-12-0.	76912- 8-0.	83352- 8-0.	42404-12- 0.	185520-8-0.	93029- 4-0.	123468-10-10.	76122- 2-1.	49935-7-1.	786274-8-0
Amount recovered towards principal.		11273-11-3.	27671-14-9.	35064- 5-10.	41342-2-9.	36004-12-4.	61741-12- 9.	70697-15-6.	56915-5-9.	340712-0-11
Amount recovered towards interest.		2008- 0-5.	3200- 4-6.	3552-11- 8.	4344-1-1.	5992- 5-9.	10439-15-10.	11943-10-3.	20039-9-8.	61520-11-2

Bangalore,
Dated the 17th September 1922.

R. Ananthakrishnamurthy
for DIRECTOR OF INDUSTRIES AND COMMERCE IN MYSORE.

BV-6)

Statement V.

Statement showing the demand collection and balance of loans for the year ending 30th June 1922

Month and Year	Demand																	
	Arrears								Current								Total Demand	
	Principal			Interest			Total			Principal			Interest			Total			Principa	
July 21																		
August 21	74,230	2	6	14,818	-	-	89,648	2	6	22,821	9	1	4,236	1	3	27,057	10	4	8,213	7
September 21																		
October 21																		
November 21										20,304	10	2	3,811	3	8	24,115	13	10	16,787	5
December 21																		
January 22																		
February 22										16,602	0	1	5,220	1	5	21,822	1	6	6,124	2
March 22																		
April 22																		
May 22										16,306	7	10	11,087	9	1	27,394	-	11	5,778	3
June 22																		
Total	74,830	2	6	14,818	-	-	89,648	2	6	76,034	11	2	24,354	15	5	1,00,389	10	7	1,90,037	13	1	36,903	1

1920 - 1921			1921 - 1922			Total		
Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	
24,337 12 2	3,259 7 5	27,597 3 7	48,487 1 8	9,739 5 5	58,226 7 1	93,835 1 11	19,247 11 9	

R. Encarnacion Arsenal
Director of
Industries and Commerce
in Negros, Bacolod

Collections 1919-1920

Arrears						Current						Total Collection					
	Interest			Total			Principal			Interest			Total				Interest			Total		
5	2,461	13	4	10,675	4	9	3,133	7	6	1,278	14	9	4,417	6	3	15,092	11	-			
-	3,044	-	1	19,831	5	1	13,682	8	3	3,157	2	8	16,839	10	11	36,671	-	-			
2	442	3	-	6,566	5	2	1,201	6	4	1,754	13	7	3,056	3	11	9,622	9	1			
2	850	2	3	6,628	5	5	1,889	13	11	7,050	8	-	8,940	5	11	15,568	11	4			
9	6,798	2	8	43,701	4	5	20,012	4	-	13,241	7	-	33,253	11	-	76,954	15	5	2,256	12	2	7,570	12	9

1920-			1915-1916						1916-1917					
incipal	Interest		Principal		Interest		Total		Principal		Interest		Total	
337 12 2	3,259		630	8 7	-	- -	630	8 7	8,096	8 11	789	- 5	8,885	9 4

1917 - 1918						1918 - 1919						1919 - 1920					
Principal		Interest		Total		Principal		Interest		Total		Principal		Interest		Total	
1,759	1	-	844	4	6	4,603	5	6	3,210	1	-	2,358	13	10	5,568	14	10	5,314	-	7	2,256	12	2	7,570	12	9

STATEMENT NO: VI.

STATEMENT SHOWING THE DESCRIPTION AND NUMBER OF INSTALLATIONS IN EACH DISTRICT AS ON 30TH JUNE 1922.

S.No:	Name of Districts.	Pumping plant.	Weaving Machine.	Printing Machine.	Electric motor.	Flour Mill.	Rice Mill.	Disintegrators.	Lathes.	Oil Expeller.	Megger.	Sugar Cane Plant.	Workshop tools & Machinery	Furniture Factory.	Litho Press.	Soap machinery.	Button Machinery	Fruit Cultivation.	Envelope cutting machine	Sawing Machine.	Ginning Factory.	Toy Works.	Photographic Studio.	Match Industry.	Manufacture of Sodium Carbonate.	Tile Factory.	Rotary Oil Mills.	Decorticators.	Pencil Factory.	Dhupa Seeds Oil Plant.	Total
1.	Bangalore	6	3	4	13	12	3	5	2	2	1	1	1	1	2	1	1	1	1								1				61
2.	Mysore	4	4	1	1	6	10					1	1							1	1	1	1	1	1	1	1				36
3.	Tumkur	15	1	1		3	2																			1	1	1	1	1	27
4.	Shimoga	9		1		1	5					1														2	1				20
5.	Chitaldrug	11				1	2			1		2		2							4										23
6.	Kadur					1	1																				1				3
7.	Hassan	1	1			1	2																				1				6
8.	Kolar	5				1	2					3	1													1					13
	Total:	51	9	7	14	26	27	5	2	3	1	8	3	3	2	1	1	1	1	1	5	1	1	1	1	5	6	1	1	1	189

Bangalore,
Dated the 17th September 1922.

R. Anantha Ramanujam
DIRECTOR OF INDUSTRIES AND COMMERCE IN MYSORE

BV-6)

STATEMENT NO 7.

SUGAR MILL ACCOUNT FOR THE YEAR 1931-1932.

Name of Installation.	Capital. As per last year's report.	Capital. Current year.	Capital. Total.	Working Expenses As per last year's report.	Working Expenses Current year.	Working Expenses Total.	Total working charges.	Milling charges. As per last years report.	Milling charges. Current year.	Milling charges. Total.
1. Agaram.	18,690 6 8	- -	18,690 6 8	12,757 14 3	382 12 -	13,140 10 3	31,831 - 11	3,161 14 -	- -	3,161 14 -
2. Chennarayapatna.	6,357 4 2	- -	6,357 4 2	667 13 1	60 12 9	728 9 10	7,085 14 -	-	- -	-
3. Shikaripur.	17,432 8 2	- -	17,432 8 2	2,756 12 9	- - -	2,756 12 9	20,189 4 11	-	- -	-
4. Chickmagre.	10,428 2 8	- -	10,428 2 8	6,445 12 5	217 4 -	6,663 - 5	17,091 3 1	5,021 6 2	- -	5,021 6 2
5. Sakrepatna.	- -	- -	- -	75 11 2	- - -	- - -	75 11 2	-	- -	-
Total.	52,908 5 8	- -	52,908 5 8	22,703 15 8	660 12 9	23,364 12 5	76,273 2 1	8,182 7 6	- -	8,182 7 6

Bangalore,
Dated the 17th September 1932.

Ramantha Ayyangar
DIRECTOR OF INDUSTRIES AND COMMERCE IN MYSORE.

BV-6)

Statement No: 8

ANNUAL STATEMENT OF THE DEMONSTRATION UNIT IN THE WEAVING CENTRES FOR THE YEAR

1931-1932.

No: of Centres at which looms were fitted up.	No: of Looms fitted up.	No: of hands trained.
13	520	587

Bangalore,
Dated the 16th September 1932.

Ramantha Subramanyam
DIRECTOR OF INDUSTRIES AND COMMERCE IN MYSORE.

DV-6)

Report on the working of the Commercial Section.

Mr. K. H. Ramayya continued to be Deputy Director of Commerce and Ex-officio Registrar of Joint Stock Companies The Offices were however removed in the month of March from a rented building in the City to the Office block near the Central Industrial Workshops. Amongst the Probationers, the services of Mr. H. K. Rama Iyengar were loaned to the Bank of Mysore, Ltd.

The main work of the Commercial Section was the compiling and publication of statistics. The section is responsible for the publication of weekly prices in the local Gazette and forwards after verification the fortnightly prices sent by the Deputy Commissioners of Bangalore and Mysore to the Residency through the Secretariat. In addition it compiles the quarterly statement of Rail Borne Statistics and publishes in addition an annual Review thereof. The Review for the Trade of the year 1920-21 is under print.

In consonance with the trade all over India, the trade in the State suffered very heavily. For the first time during 7 years the total trade decreased by 2.5 crores in comparison with the previous year and further the whole decrease was under exports. This state of affairs is attributable to the following main causes:- The complete stoppage of the emergent demands created by war, the removal of the transport restrictions, the fluctuations in the exchange market, the lowering of the price levels for most of the commodities and the fall in the area under cultivation.

Agricultural Statistics.

The total area cropped during the year was 62,62,000 acres as against 65,41,000 acres in the year 19-9-1920.

The principal groups of agricultural produce are - -

are Food grains, Oil seeds, Condiments and Spices, Sugar, Fibres, Drugs and Narcotics and miscellaneous crops.

Under Food Crops, the area cropped had risen from 50,87,000 to 54,56,000 acres in 1920, but declined to 51,58,000 acres in the year under review. The chief items making the 3 lakhs of acres decrease are Ragi the acreage under which fell by 1,39,000, Rice which decreased by 85,000 acres, Jawar, the decrease in which was 55,000 acres and under Horsegram 44,000 acres.

The area under Oil seeds was 3,02,000 acres as against 2,84,000 in the previous year, the principal item being castor, 1,05,000 acres, Groundnut 73,000 acres, and Gingelly 69,000 acres.

Spices were cultivated over 1,28,000 acres as against ± 1,41,000 in the previous year.

Sugar and Fibres, including Cotton, were grown over 1,15,000 acres as against 1,52,000 acres in 1919-20, this year's acreage being the lowest during the last 6 years.

Drugs and Narcotics, were grown over 1,37,000 acres, Coffee occupying 1,06,000 acres, and Tobacco 22,500/.

Fodder crops were grown in 39,000 acres. And among miscellaneous crops, cocoanuts 1,10,000 acres, Fruits and Vegetables 57,000 acres, Food crops 83,000 acres, and non-food crops 98,000 acres.

General Summary.

The total trade of the State during the year amounted to ₹ 24.68 crores, in value this year, as against ₹ 26.83 crores in 1919-20, and ₹ 24.30 crores during the year - - previous.

The imports were valued at 13.44 crores, or an increase of just 7 lakhs over the previous year's. But the Exports amounted to only Rs. 11.24 crores as against Rs. 13.45 crores in the previous year, due to a deficit of 2.36 crores of rupees under the head of Merchandise. The export of Treasure was valued at Rs.2.82 crores, or an increase of about Rs. 15 lakhs over the figures of the previous two years.

The total quantity of Merchandise, by weight -- - transported during the year was 165.57 lakhs of manunds as against 150 lakhs of maunds in the year previous. The imports weighed 116.55 lakhs of maunds as against 105 lakhs, and the exports weighed 49 lakhs of maunds, as against 45 lakhs of maunds in the previous year.

The large items under imports were Coal, weighing 36.51 lakhs of maunds, and Food-grains weighing 18.85 lakhs of maunds, and salt and Timber, and Oils ~~and~~ weighing 9, 8 and 5 lakhs of maunds respectively.

The more weighty items under exports were mineral Ores amounting to 11 lakhs of maunds, Oil seeds and Copra 7.93 lakhs of maunds and Fruits and vegetable and jaggery and sugar weighing 6.36 and 3 lakhs of maunds respectively. One curious feature in the list of leading articles in merchandise, is the fall under food-grains from 11 lakhs of maunds exported in 1918-19 to 94,000 maunds in the year under review, and the rise in the export of mineral ores from 1.61 lakhs of maunds of 1919 to 11.23 lakhs of maunds during the year under review.

Weights and Measures.

In consultation with the Director of Industries an order for a 1,000 sets of Standard Weights were placed with the Central Industrial Workshop and these were supplied to the Deputy Commissioners for sale in the Districts. The question of manufacture of Seamless Measures is under discussion between the Government and the Premier Metal Factory and in the meanwhile a statement of requirements in the State is being - - obtained.

Commercial Museum.

The question of the transfer of the Museum to Bangalore engaged the attention of this section. Detailed proposals were submitted to Government urging the necessity for such transfer and asking for its location in the Old Power H°use near the City Market. Due to financial stringency, Government had ordered the reduction of the establishment in the Museum and the question of its location temporarily in the Chamarajendr Technical Institute without necessitating the employment of any additional hands is under the consideration of the Government.

Bureau of Commercial Information Library &c.

During the year, the Bureau furnished information to enquirers and since the transfer of its habitation to the Head Office, the Library of both the offices were amalgamated and the Bureau is now compiling a card index of all files relating to Industrial and Commercial Information.

G E N E R A L.

Of the Associations that were started last year, the Grain Merchants' Association is doing useful work, the Piece goods merchants' Association is however dormant. The selection of a suitable site for the Commercial Museum is also engaging our attention.

R. Ananthakrishnamurthy

FOR DEPUTY DIRECTOR.

BV·6

Immediate. (7)

D.O. No. 2587

GENERAL AND REVENUE SECRETARIAT,

Bangalore, Dated 21. 10. *1922*

Dear Mr. Ananthasubramaniam,

In the annual report on the Administration of the Industries and Commerce Department the Director has referred to the original report by the Superintendent of the Industrial Workshop, the Indrial Commission, the Textile Assistant etc., which he says are sent as accompaniments to the main report. These accompaniments however have not been received and consequently information as regards the exact nature and volume of work done in each of these concerns during the year, cannot be easily gathered. Will you kindly arrange to send the reports referred to enable me to refer to them in drafting the Government Review.

Yours Sincerely,

M. 21/10.

Gl. No. 28.

Office of the Superintendent,
Central Industrial Workshop,
Bangalore, dated 24th July 22.

To

The Director of Industries and
Commerce in Mysore,
Bangalore.

Sir,

ANNUAL REPORT ON THE ADMINISTRATION OF THE C.I.WORKSHOP FOR THE YEAR 1921-22.

Referring to your circular No. G.C.2/22-23 dated the 5th inst I have the honour to submit the following report on the administration of the C.I.Workshop during 1922-23.

A brief report on the wokk done during the period of nine months ended 31-3-22 was submitted with my letter No. 518 of 13-4-1922. In this report all important points on the working of the institution have been dealt with and there is not much to add to the same except by way of general remarks

THE CONCERN AS A WHOLE, ITS FINANCIAL POSITION & REORGANIZATION.

As stated in the brief report, the present management concentrated its attention in examining the working of the concern and finding out the causes that contributed to its working at a loss and to suggest remedial measures.

The four successive balance sheets having shown loss which cannot all be accounted to bad working of the factory was gone into and a comprehensive scheme for the reorganization was submitted by me in this office No. 202 of 10-11-1921.

Further examination of the case by the finance committee supported the need for reorganization.

For all these reasons Government have been pleased to overhaul and reorganize the institution.

Fresh evaluation of the capital, fixed and floating assets is almost complete and a balance sheet adopting the revised figure is under completion and will be submitted very shortly.

The institution will start with a clean balance sheet and it is hoped that its working will be satisfactory

Coming to the working of the period under report I furnish the following statistical information:-

P.T.O.

of work orders on hand at the commencement of the year(i.e. on July 1921) = 262.

of orders received during the year

= 1029.

dealt with and finished.

= 931.

of orders in process on the close of the year.

= 360.

IE OF WORK TURNED OUT

Govt. Departments & Private parties' sales.		= Rs 1,09,372/-
ltion to work in process (About)		= Rs 15,628/-
	Total	= Rs 1,25,000/-

of workmen on the roll on 1-7-21	190.
---do--- on 30-6-22	150.

ILT.

With the reduced value for the capital assets and writing-down the stock values to conform to the market rates, we hope to show real working results.

In an institution of this nature, the establishment is a fixed rge, which cannot be reduced below a fixed figure consistent with icient management. The only way of producing profit is by incr-sing the output with the minimum establishment.

The orders from the Government do not flow with ease. Our rates quality of work compare very favourably with those of any other n. If Govt. are pleased to bestow their attention on this matter, will be very grateful.

Programme of work must be taken up to keep output high and mi-nise periodic idle labour. We are concentrating our attention on ughs and sugar cane mills. Though in the past, mistake has been nitted, we hope to rectify those and produce better results.

The question of making filature parts and loom parts is also aging our attention.

On the whole, the institution has been steadily progressing. n some more essential machinery, we can make this workshop a el of its kind.

"Copy"

I have the honour to be,
Sir,
Your most obedient servant.

(Sd) B.G.A. Murthy

Superintendent,
Central Industrial Workshop,
Bangalore.

B.G. Murthy

Superintendent,
tral Industrial Workshop,
Bangalore.

THE GOVERNMENT ART WORKSHOP, BANGALORE.

In reply Refer to
No.
L. F.

SUPERINTENDENT'S OFFICE,

Bangalore. 2nd August 1922.

To

The Director of Industries and-
Commerce in Mysore,
Bangalore.

Sir,

REPORT ON THE ADMINISTRATION OF THE GOVT. ART WORKSHOP FOR THE YEAR ~~XNDXXXX~~ 1921-22.

Referring to your No. 942/1123 dated 25.7.1922 calling for a report on the above subject, I have the honour to submit as follows:--

PREMISES AND MANAGEMENT.

The Govt. Art Workshop was housed in a rented building on the Hosakote Road till December 1921. It was then shifted to the premises of the Central Industrial Workshop in January 1922 with a view to produce economy and efficiency. The Government sanctioned a grant of Rs. 6200/- for shifting and housing the Art Workshop in the Central Industrial Workshop.

Mr. N.Lakshminarasimhayya was the superintendent in charge till December 1921 and on its transfer to C.I.Workshop to in January 1922, Mr. B.G.A.Mudaliar was placed in charge in additio to the charge of the Central Industrial Workshop. Mr. R.Swami-natha Mudaliar was the manager throughout the year.

WORK AND DEVOLOPMENT.

The working of the Art Workshop having been found by the successive balance sheets to result in losses, the present man-agement concentrated its attention in finding out the causes that contributed to this result; and submitted in This office No. 1065/1067 dated 8.3.1922 comprehensive scheme for the re-orga-nization of the institution. And Govt. also have, on the reco-mmendation of the Director of Industries and Commerce and also of the Finance Committee's report, ordered a reorganization and formal proposals will be submitted soon.

A brief

A brief report of work done by the institution for 12 months ending 31st March 1922 has been submitted in This Office No. 1065 dated 8-3-1922, and there is little to add to it except by way of general remarks.

One of the reasons for the losses having been found to be purchase of timber from middle men instead of directly from Govt., arrangements have since been made with the conservator of forests to meet our requirements in timber and this may result in appreciable savings.

A second reason is, the institution has been a training ground trade apprentices. There are as many as 90 boys, and 30 unskilled men receiving training. The wages paid to them works out to Rs 9000/- per year. Though this amount representing unproductive wages, adds to our losses, the value of training afforded cannot be directly gauged.

A full equipment of labour saving appliances, a seasoning kiln with a few additional tools and machines are necessary to work the institution on profitable and better lines. A scheme embodying these items has been already submitted.

USEFULNESS OF THE INSTITUTION.

In addition to affording training and means of support during that period, to about 120 boys and unskilled men, it gives useful employment to about 150 men and has been the centre of recruitment of skilled labour to many other centres in the state which require trained and skilled hands. The average earning of an audult workman in the factory comes to Rs 25/- a month; the maximum being Rs 75/-.

Its name and work are very well known throughout India and orders resulting in profit and appreciation are received from all quarters. In a few cases complaints are also heard due to unseasoned timber having been used in the manufacture. This is due to the want of a seasoning kiln.

The output has been steadily increasing from year to year and the institution is gaining in popularity.

WORK DONE.

In sandal-wood

In sandalwood and ivory carving section new designs were introduced. High calss workmenship in sandalwood and ivory figures were porduced and sold readily in the market and an ivory casket of splendid and attractive workmanship was supplied to the Bangalore Civil and Military Station Municipality. Sandalwood and jewell boxes of various sizes were made and introduced in the market.

In wood-carving section several fresh designs were drawn up and screens and tables of beautiful workmanship were continued to be prepared.

The ivory and wood-turning department has been devoloped considerably and new veriety of goods were produced on a large scale. Lacquered articles or superior kind of high class workmanship prepared has been finding immediate sale. Action has been taken to devolop this section on a large scale Toy-making is in elementary stage and it is hoped that this will be devoloped. Th Furniture department was devoloped very largely and several large orders were taken up and executed satisfactorily. This department is unable to meet the demand at present.

RATTAN SECTION.

Large number of boys are being trained in this section. There is a good demand for these articles.

The devolopment of Instrument section has been suspended at present on account of our not getting orders from the P.W.D. for repairing mathamatical instruments etc. Finished articles are not selling rapidly and it is also difficult to make new instruments duo to difficulties in getting spare parts and high class sencitive lesces from England. We are also making safes of high class with a view to introduce new designes.

FINANCIAL.

From the experience of last six months. I am of opinion that this Art Workshop institution is very encouraging. This is the training place where large number of poor boys having no means of livlihood will have all encouragements to learn

useful

useful arts in order to be good citizens of the state and the kind of goods that can be done is so varied. I am confident that the production can be easily increased if further facili-ties and funds are provided.

(Sd.) B.V. Anantakrishnaiya

Bnv/

SUPERINTENDENT.

"Copy"

B.V. Anantakrishnaiya
Superintendent,
Central Industrial Workshop,
Bangalore.

Ref. No. 22 THE GOVT. WEAVING FACTORY, BANGALORE.

Encls. *Dated* 20-7-1922.

From

The Textile Assistant,

Government Weaving Factory,

Bangalore.

To

The Director of Industries and Commerce,

in Mysore,

Bangalore.

Sir;

I have the honour to submit herewith a Report on the working of the Demonstration section of the Government Weaving Factory for the year 1921-22.

The work of the Demonstration section falls under 3 main divisions:-

1. Experimental Works.
2. Workshops.
3. Demonstration work.

1. Experimental Works.

(a) The following machines were devised and constructed during the year.

1. Suitable cages were devised to unwind coloured silk skeins and wind it straight on to the warpers' bobbins. Hitherto this was being done by putting the skeins on two wooden or bamboo sticks and wound on to the bamboo arates and then it was being finally wound on to the warper's or Weaver's bobbins. The outtern by the old processes was only 10 tolas per day whereas in the new device the outturn is 30 tolas per day. Besides, the intermediate process of winding the skeins on arates is saved. Thus it saves much time and labour and increase outturn.

2. An improved sectional warping and Sizing Machine is devised and constructed for lower counts. Certain improvements have been effected to make this machine suitable for higher counts. This machine was exhibited in the All India Weaving Exhibition held at Patna in November 1921. It won the First Prize of Rs.1,100/- offered by Mr. Salendra Krishna Deb for the best original device connected with the hand loom Weaving. The Prize was awarded by a Committee of Experts.

3. WARPERS' BOBBIN WINDING MACHINE OF 12 SPINDLES.

The chief feature of this machine is that the thread is evenly and firmly wound on to the bobbin. There is also an arrangement either to work or stop any spindle not required for use in the machine. The machine was first adopted for winding standard skeins and it has since been improved to take in country silk skeins of varying sizes.

4. The Double Shuttle Slay.

The double shuttle slay was being worked with 2 pickers. As this process was not easy, certain improvements were devised, by which both the shuttles are driven by only one picker by means of string.

5. Pirn Winding Machine. is further improved to give better results i.e,. increase in production.

6. TWISTING MACHINE. is further improved to give better production and uniform twist and it is also adopted for making sappahuri of 3 ends.

7. A BALL THREAD WINDING MACHINE. is constructed to prepare sewing thread in ball form.

(b) The following are the incomplete Experimental Works on hand-

1. The single end warping and Sizing Reel.

It is intended for the cottage weaver, who prepares short length length sized warps by the old method. Experiments are

are being made to devide a machine to save time and to give good results in making sized warps. If we should succeed in constructing this machine it will be a great boon to the cottage weaver as he can by means of that prepare his sized warps at all hours of the day.

2. The Pirn and Bobbin winding machine are being further improved for winding coloured silks by introducing cages in place of swifts.

11. DEMONSTRATIONWORK SHOP.

Machines devised by us are constructed here. Some of our machines which have found favour with small factory owners are being built here on orders. I append hereto a Statement "A" showing the number of machines constructed and supplied to various parties and the cost thereof and the number pending execution The machines constructed and supplied this year are nearly twice to what they were last year.

The Demonstration workshop is an useful adjunct of the Factory. Important Experimental works are carried on here. Its situation within the factory premises affords facilities for close supervision and frequent testing of machines under construction. Besides, any improvements that may be found necessary in the light of the experiment made may also be effected then and there. The present equipment of the workshop is very inadequate. The financial aspect of the workshop is encouraging as it is not working at a loss. A balance Sheet as on 28-2-22 is appended hereto for favour of information.

111. DEMONSTRATION WORK.

This work consists in conducting Demonstration on Fly-Shuttle looms and other improved appliances pertaining to the Weaving Industry with a view to popularise the same in the State This is carried on with the aid of 12 Demonstrators at different places in the Province. Statment "B" showing the number of

of looms &c introduced at various centres is appended hereto. The number of Fly Shuttle slays introduced is neraly 30 % more. The two Inspectors for this ~~pup~~ purpose were on other duty, hence the work done at these places could not be supervised. I have now and ~~again~~ then inspected some of these places but such inspections carried on at irregular intervals are no good. In the last half yearly report, I have explained the necessity for extra hands for closer supervision over this important work.

Besides holding demonstration on fly shuttle looms, the department renders, the necessary assistance by way of professional advice, supply, and fitting up looms preparatory machinery &c to persons starting hand and Power looms factories. The following are the factories started during the year with the help of this department.:-

1. Islamia Kaddar Hand Loom Weaving Factory Bangalore by one Mr. Haji Ibrahim Sait.
2. Swadeshi Bandar Hand Loom weaving Factory by one Mr. Bhima Rao.
3. Bowringpet Hand Loom weaving Factory by one Mr. A.V.Rama lingam.
4. Dhavangere Hand Loom Weaving Factory started by Mr.Raghu nath Krishna.
5. A silk Twisting factory has been opened in Bangalore by one Mr. Kode Eswarasa a silk merchant of the city. The machines used therein are worked by electric power and were devised and constructed in the demonstration workshop of the Weaving Factory. There are in this factory at ~~pre-~~present only 4 bobbin winding machines of 12 spindles each 3 Twisting machines of 60 spindles each. One Reeling machine. Three more twisting machines have been constructed and will be supplied as soon as the extension of the shed is completed.

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DEMONSTRATION STORES.

The purchases of materials for the workshop and supply of looms and loomparts to the Demonstration centres are made here. The transactions during the year amounts to Rs. 32,814-2-8. There is also a sub-store at Mandya in charge of a temporary clerk on daily wages to hold in stock and to supply loom and loomparts required for demonstration work and by the other weavers of the locality and surrounding villages. The volume of work is great ~~at~~ as Mandya and Malawalli Taluks form a big weaving centres. As a measure of retrenchment the service of the temporary clerk ~~is~~ are dispensed with and the stores is now in charge of a demonstrator

DEMONSTRATION STAFF.

The services of Mr.M.Krishna Rao Superintendent of the Factory were temporarily transferred to the Co-operative Department and Mr. Wesley one of the Weaving Inspectors was transferred from Hunsur to Bangalore to be incharge of the weaving Shed. Mr. Venkatesh the other weaving Inspector continued to be in charge of the Sales Depot till the appointment of a Sales Manager in March 1922. Thereafter he was placed in charge of the Weaving Shed. His services will have to be dispensed with owing to retrenchment from 1st July 1922. Mr. Krishna Rao has reverted to this department in June 1922. Mr. Wesley who is on leave will be reverted to his permanant appointment in Central Jail, Bangalore.

Out of the 18 Demonstrators sanctioned by Government only 16 were entertained during the year out of whom 3 resigned their posts during the 2nd Half of the year under Report. Out of the remaining 13, one was in charge of the Hunsur Kambly Factory and another in charge of Chicknaikanhalli Kambly Factory and one lent to District Board Factory at Kolar. Thus only 10 demonstrators were on actual demonstration work the senior most of them being deputed to the supervision work for some time.

The Jacquard Assistant's place has fallen vacant since Novr.21 owing to the incumbent (Mr. Muninagappa) having been transferred to the Director's Office establishment as Assistant Mechanic. He continues to be in charge of the Demonstration workshop of the weaving Factory.

The clerical Staff sanctioned by Government is only one clerk who maintains the from and to Registers of the factory and Demonstration and attends to despatch work and is also in charge of the records. He prepares T.A.Bills also.

As there was no separate clerk on the establishment for maintaining accounts ~~of~~ of the Demonstration section the services of the Accounts clerk of the Factory establishment were utilised for the purpose and two hands were entertained on wages to be in charge of the Demonstration stoves at Mandya and at Bangalore.

General.

From the 1st of March 22 Demonstration section has been amalgamated with the factory proper to create facility for better work and also to reduce to some extent the establishment charges. The work of this section has been very successful. But owing to the present slump in the market the demand for the Fly Shuttle slays has not been very much. The Khaddar movement has created an interest in the Weaving Industry and many people are anxious to start small private factories but owing to the present unfavourable condition of the money market they have not been able to achieve their object.

I have the honour to be,

Sir,

Your most obedient servant,

Textile Assistant.

hm

Statement showing the Different Kinds of machineries manufactured & sold during the year ending

1920-21			1921-22		
Names of persons to whom machines were supplied.	Particulars of Machines supplied.	Value	Names of persons to whom machines were supplied	Particulars of machines supplied	Value
Dr. Eco: superr. Chittaldrug	Warping & Sizing machine	375 - -	1 Mr. Jayanthi Ramachari	Sizing machine	200 - -
Good shepherd Convent Bangalore	Warping & Sizing machine	375 - -	Chappa silk Merchant Rayadurga	2 Twisting machines of 60 spindles	900 - -
	Winding machine of 200 bobbins	75 - -	2 Mr. Shahajarao Chandak Bangalore city	Sizing machine	225 - -
3 Mr. V. Narashimayya Kolar Demonstrator	Warping mill with 48 bobbins	60 - -	3 Mg. Assistant Industrial School Madura	Twisting machine of 12 spindles	235 - -
	Chaprao rake	20 - -		Universal pirn winding machine	200 - -
	silk winding machine	75 - -	4 Mr. K. Sanjiva Rau Textile Expert Ranchi	Warping machine with Creel stand	325 - -
4 Messrs J. V. Ratnangiri & Bros	Winding machine	75 - -		Universal pirn winding rake	25 - -
5 Supdt. Govt. Mg. Factory Guntur	Winding machine 6 rakes.	110 - -		Traverse motion rake	15 8
6 Agricultural Instructor	One radia	20 - -		Bobbin winding machine of 12 spindles	325 - -
	1 Chaprao reeling machine	90 - -		Pirn winding machine	370 - -
7 Shahajarao Chand & Co Bangalore city	13 winding rakes	130 - -		Warping & sizing machine 24 spindles	775 - -
	36 spindle bobbin winding machine	220 - -		Twisting machine of 40 spindles	500 - -
	Twisting machine	300 - -		Chaprao rake	25 - -
	Silk reeling machine 1	90 - -		Bobbin winding rake	19 - -
8 Mr. K. Mallappachetty Rice Merchant Kuppam	Warping & sizing machine	375 - -		Sizing box different counts	250 - -
	Warping stand	25 - -		Cocoon Reeling Machine	335 - -
9 Mrs M. R. Shanmugam Rau	Frame loom with accessories	6 6 -		Tasar silk winding machine	150 - -
10 Mg. Assistant, Mangalore	Traverse motion radia	11 8		One silk reeling machine	90 - -
11 Mr. R. S. Rama Iyer & Sri Rama Mg. Shed	Reeling machine	90 - -		Chaprao rake 3	
	Automatic winding rake	20 - -			

	Twisting machine of 60 spindles	300			Universal pirn winding rake	25
	Winding machine of 36 spindles	255	5 Messrs Haji Abrahim Sait & Sons	Kodiyatar Bangalore	Universal pirn winding rake	25
12 Mr W. M. Sundram Wg. Asst. Assam	Twisting machine of 60 spindles	300			Plain rake 2	278
	Winding machine	75			Warping & Sizing machine	775
13 Mr P. Seeman Hanji Post	Automatic winding rake	20			Bobbin winding machine	185
	Ordinary winding rake	10	6 Haji Abdul Rahim Sait		Warping & Sizing machine of 12 spindles	775
14 Mr K. Anandaram Karnatic manufacturing Coy: Nabli	Winding machine of 12 spindles	75		Vaniambadi		
	Warping & Sizing machine	400	7 Mr Hari chand Ram		Universal pirn winding	15 12
	Automatic pirn winding rake	20	Anand a Ram Bhagalpur		Pirn winding steel rake	25
	Double shuttle slay	10	8 Mr P. Sundram		Silk Reeling machine	266 13
15 Rupees Govt Wg Factory	36 spindle bobbin winding machine	187 3 10	Wg. Superintendent	Kanchipuram	Universal pirn winding rake	28 8
16 Director of Industries	Automatic winding rake	20	(9) Mr Govindasami	Vaniambadi	1 Complete set of looms	69 9
17 Mr Vasudevanja Mysore	Ordinary winding rake	10			One warping & Sizing machine	775
18 Mr C. Tiruvenkata Char - Agizmajar Settlement	Warping & Sizing machine	400	10 Mr C. Srinivasan	Colombo	One complete set of looms	48 12
	Universal pirn winding	20	11 Mr M.	Ahmedabad		110 12

Names of parties to whom machines were supplied	Particulars of machines supplied	Rate		
Mr Jayantilal Ramachand Chhajpa - Rajadwy.	4 Winding racks.	40	-	-
	Silk reeling machine	90	-	-
	Chapras racks 3	75	-	-
2/m Briggs - Westward View Agt Ground - Bangalore.	3 Frame looms.	225	-	-
	Total	7508	9	10
Finished Stock of machines on hand.				
	Transmission rake	23	-	-
	Plain racks 11 at 10-8	115	8	-
	40 Spindle Twisting machine	4 16	-	-
	Adjustable swifts 12 at 2/	24	-	-
	Sizing machines 2 at 200/	400	-	-
	Warping mill	290	-	-
	Jappits 9 at Rs 4/6/-	40	8	-
	Cochran Twisting machine of 40 spindles	60	-	-
	Reeling & bobbin winding machine.	150	-	-
	Weaving slays	25	-	-
	small Twisting machine	235	-	-
	Wooden frame - 4	33	-	-
		1814	8	-

Names of parties to whom machines were supplied	Particulars of machines supplied	Value	
15 Director of Industries Bombay	Warping & sizing machine	775	-
	Pirn winding wheel	25	-
	Silk Doubling wheel	25	-
	5 universal pirn winding racks	125	-
	Universal bobbin winding machine	350	-
	Universal pirn winding machine	395	-
	Twisting machine - 1	575	-
16 Superintendent Central Jail Trivandrum	Warping & sizing machine	775	-
17 Mr A. H. Whittle Yercaud	Bobbin winding racks 2	87	-
18 Dr W. A. D'Silva Colombo	Universal pirn winding rake 1	25	-
	Bobbin winding rake 1	18	6
19 Mr M. K. Doss Calcutta	Universal pirn winding wheels 2	42	-
20 Wg Industries Baroda Bap Gaya ...	Double shuttle slays with accessories	26	-
(21) Mr Khadi Swaraj Bangalore	60 spindle Twisting machines	1650	-
	Universal bobbin winding machine of 120 spindles	335	-
	Hank reeling machine	385	-
22 Mrs W. A. Talentyre Thennamalai	Warping & sizing machine	775	-
23 Mr S. Jawali			

Winding machines	194	2	8
Tape machine 1	38	11	.
Universal pirn winding machine 3	231	4	1
Wooden Rollers for ring machine 38	33	11	.
Ring machine 3	417	12	5
Shalapur & vijapur taffs	36	1	.
Rates 12	28	7	
Small do bell	23	15	4
Table for shaping	25	10	6
Frame looms 2	68	6	.
Iron stello 565	14	11	.
	1783	12	8
Grand total	1,106	14	6

Superintendent

Gloves & Factory

Unfinished Stock of machines on process.

Winding machine 60 spindles	450	.
Universal bobbin winding machine	266	.
do pirn winding machine	300	.
	16643	8
3 winding & 3 ring machines almost Complete (700 each)	2100	.
3 Twisting machines of 60 spindles Each at Rs 300	900	.
2 frame looms at 30	60	.
1 twisting machine of 40 spindles almost complete	400	.
3 Reeling machines at 150	150	.
5 frames for bobbin do Rs 50		

14 Mrs Kilkar Krallaswar — Frame loom

20 Mrs Jayanthi Rama Chandrappa Rama-urya

100 spindle Twisting machine	40	.
Circular do	900	.
Winding machine	128	.
Reeling bobbin winding	250	.
36 spindle bobbin winding machine	200	.
40 spindle universal pirn winding machine	253	.
	200	.

12 Mrs B. V. Ra

13 Mrs Bhim Swadeshi Bang

B.

Statement showing the demonstration work of flyshuttle looms in several weaving Centres during the

Year 1921-22. 1920-21.

Names of Demonstrators	Head quarters of weaving Centres.	No of fly shuttle looms fitted up-	No of weavers trained.	Names of Demonstrators	No of fly shuttle looms fitted up-	No of weavers trained.
Sri V. Narasimmayya	Lakkur	25	25			
" P. Doddaya.	Tumkur.	40	154			
" Sripri Bora	Kumarhally	71	58			
" S-Ranganna	Mandya Mysore	28	50			
" Siddappa chetty	Chikkaballapur	27	7			
" V-Ramaiya	Kolar	27	17			
" P. Venkatramanappa	Sanjapur	24	39			
" K. Sadashiva Rau	Manchinahally	17	18	Demonstration staff	387	311
" R. Puttaswamy	Sampur, Kadigal	61	49			
" C N. Puttaswamy	Gubbi	22	22			
" K. Hanumanth chetty	Kikkery.	63	63			
" T. Gallappa chetty & G. Ranganna S.	Kunkanhally	43	43.			
" Appajappa.	Wallada Kere	35	31			
No of looms sold & introduced in addition to the Demonstration staff		26.				
	Total	509	576	Total	387	311.

Asstt Assistant

Statement of assets & liabilities of the Wg. Demonstrator in workshop as on 28th February 1922

Assets	Amount			Liabilities	Amount		
Stock (Demonstrator in workshop - dead stock	6610	2	-	Dues to merchants -	5367	11	6
Sundry debtors :- (a) stock with Demonstrators storekeepers at Mandra Humsar Kambly Factory = 6657-2-7				outstanding payments - Rent = 497 - - Wages = 578-10-3 Estt. - Pay of factory 60 - - Mager 8 - -	1135	10	3
(b) other debtors = 5669-7-3	12326	9	10	Dues to Dept. stores as per Dept. stores books	12013	13	10
Work in hands pretty stones Rs 5260-1-8				Security deposits - -	575	-	-
Work in process = 4262-15-11	9723	1	7	Reserve for doubtful debts	781	15	5
Advances. -	85	6	-				
Cash on hand - -	364	1	7				
	24109	6	-				
Surplus of assets over liabilities - -	4235	2	-				
					19874	3	-

Dr Mehta
Textile Assistant

Ref. No. 22 THE GOVT. WEAVING FACTORY, BANGALORE.

*Encls.*_____ *Dated* 27th July 1922. *19*

From

The Textile Assistant,

Government Weaving Factory,

Bangalore.

To

The Director of Industries and

Commerce in Mysore,

Bangalore.

Sir,

I have the honour to submit the Report on the working of the Government Weaving Factory (Proper) and the various branches thereof for the year 1921-22.

MAIN ITEMS OF WORK DONE IN THE ~~===~~ FACTORY.

1. Manufacture of finer counts cotton saris with silk borders with or without figures by means of improved appliances with a view to exhibit to the people interested in the Industry the usefulness of the improved appliances devised for the purpose.

2. The manufacture of silk saris on Fly Shuttle Looms.

3. The working of the Fly Shuttle with the Jacquard appliance fitted thereto to weave silk brocades and Banarese laced silk saris.

4. The availability of cheap electrical Power is taken advantage of to install Power Looms. After the introduction of these Power Looms in the Government Weaving Factory a few Enterprising merchants of the place are keenly interesting themselves to start Power Loom Factories. Sri Rama Weaving Shed has installed a few Power Looms and is working successfully.

5. The manufacture of heavy Army Blankets, rugs, cooly blankets and Donigal tweeds are also carried on, on improved methods to demonstrate to the public. There are two factories one at Hunsur and the other at Chicknaikanhalli to carry on this kind of work in the districts.

6. The preparatory processes of winding, twisting, doubling, reeling and warping and sizing on improved machinery devised and constructed at the Demonstration Workshop of the Factory are also carried on in the Factory. The main object of the Factory as seen from the above is educative; but it is also worked commercially to meet the cost of establishment etc.

Total number of Looms in the Factory is 52.

Power Looms	5.
Pit Fly Shuttle Looms	23.
Jacquard looms	9.
Pit Hand Looms	3.
Frame Fly Shuttle Looms	12.
Total	52.

WORK DONE.

During the period in question the production of finished goods is Rs.82,605-14-8 being less than the previous year by Rs.18,545-12-1 due to frequent absence of weavers on account of illness. The use of country silk is also responsible for shortage in production. In this connection I have to bring to your notice that as most of the weavers are from the mofusil, slightest indisposition makes them return to their native place for change. This effects our work considerably. I am trying to enlist as many local men as are available as these men are not likely to be absent for longer periods.

EXPERIMENTS IN WEAVING.

Hitherto in the manufacture of silk goods, spun silk was made use of, but as the spun silk contains an admixture of

of cotton and it does not keep up its gloss after a time. Attempts were made to replace it by means of indigenous local silk of superior quality. The result has been that the goods of superior quality are being manufactured. For the first time country silk was used on Power and Fly Shuttle Looms satisfactorily in place of spun silk.

Hitherto chapras was used for weft in the manufacture of silks. But as the texture is affected after a time in wear, suppahuri is substituted in its place with the result that the goods manufactured wear well.

Water line coating silk is manufactured using country silk for warp and coarse cotton for weft. This quality of silk is much cheaper, more durable, washes well and ~~kept~~ keeps gloss.

Experiments are being made to find a suitable size-mixture to replace Ragi-size to prepare warps for the Power looms.

SALES.

The sale during the year was not encouraging being only Rs.90,124-3-1. This was due to slump in the cotton market. Our goods are being advertised outside the Province and as a ~~resul~~ result thereof, we got a few orders, it is hoped that in future demand for our goods outsides the State will be large.

The Agencies at Shimoga and Mysore showed ~~th~~ no signs of improvement. The sales effected by them during the year are Rs.2,949-5-6 and Rs.565-15-0 respectively. These agencies are in existance for the last 3 years and they are not exerting themselves to push on the sales of our goods. I am therefore of opinion that these may be closed for the present.

The sale of kamblies is attended to in the factory stores, separate stocklist is maintained therefor. The stock

The stock of kamblies is also large, and I have arranged to dispose of the entire stock of rugs.

STORES.

This was attached to the Central Industrial Stores till 31st December 1921 and since then it has been transferred to the Factory Proper. It is also proposed to add on the Demonstration stores to the Factory stores. There will therefore be only one General Stores in future.

DYE-HOUSE.

The Dye house which was first started to conduct experiments in dyeing and to dye our materials is temporarily closed owing to the place of the Dye Assistant having fallen vacant. Our materials are now dyed by a local dyer Mr.C.chakrapani L.T.C. within the Factory Premises for the sake of convenience.

KAMBLY FACTOIRES AT HUNSUR AND CHICKNAIKANHALLI. continued to do good work in the manufacture of rugs and cooly blankets. The production was Rs.17,737-2-0 and Rs.6,475-2-0 respectively. As the stock of woollen goods on hand was large, further production was stoped in these factories for the last six months.

Staff.

During the period under report the Superintendent Mr. Krishna Rao who was in charge of the factory was appointed temporarily as Inspector of Weavers' Co-operative Societies and in his place Mr. Wesley who was in charge of the kambly Factory at Hunsur was transferred in September 1921. Mr. Krishna Rao reverted from the Co-operative Department on the 1st of June 1922 to his permanant appointment in the Factory. Mr. Manjundiah the Dye Assistant resigned at his post in November 1921 and the dye house is now closed.

Accountant Mr. Madhava Murthi Rao was transferred to Soap Factory in his place Mr. S.Venkata Rao was transferred from Head Office.

As the work was increasing 3 additional hands Viz., a Store keeper on Rs.40/- , a Typist on Rs.30/- and a Sales Manager on Rs.50/- were sanctioned by the Government to cope with the increasing work.

G E N E R A L.

The financial aspect of the Factory is encouraging. It will be seen from the Balance Sheet for the Half Year ending 30th June 1921 that the Factory made a gross profit of Rs.4,320-7-6 and after defraying establishment charges etc therefrom resulted in a loss of Rs.3,529-7-9; whereas during the half year ending 31st December 1921 the gross profits were Rs.6,076-10-8 and after defraying establishment etc resulted in a loss of Rs.1,085-5-8. Even this loss will not occur after the revaluation of the Dead Stock etc as per Government Order No. 5773-4 Doc 139-21 dated 15-5-22.

During the year 5 students were trained. Two from Hydrabad State, One from Dharwar and two local people were trained and returned to their respective places.

I have the honour to be
Sir,
Your most obedient Servant

RKK.

Textile Assistant.

Ind 91-22-3.7

Proceedings of the Government of H.H.
the Maharaja of Mysore.

R e a d:-

The report on the working of the Department of Industries and Commerce during the year 1921-22 received with letter No.22 dated the 18th September 1922 from the Officiating Director of Industries and Commerce in Mysore.

Order No. IC. 3148-207,
Dated 16th November 1922.

Recorded. The report which was due in the Secretariat on the 31st August 1922 was received with a delay of 18 days.

2. Organisation of the Department.- Mr. P. G. D'Souza assumed charge of the office of the Director on the 4th October 1921-after his return from the deputation to Western Countries-from Mr. C. S. Balasundram Iyer. Mr. Ganesha Iyer was transferred to the College of Engineering as a temporary measure and worked in the University throughout the year On the transfer of the Metal Factory to private enterprise, Mr. N. Lakshminarasimhaiya was reverted to the Public works Department, the Art workshop being amalgamated with the Central Industrial Workshop. Mr. S. V. Ramaswami, Superintendent of Industries, continued to be employed by the Mysore Premier Metal Factory.

63

The Offg: Director toured for days inspecting the various industrial concerns assisted by Government and examining the -- scope for expansion of work and also enlisting

ing

enlisting the co-operation of private people in furthering the objects of the Department.

3. Changes in the lines of work of the Department.- There have not been any important changes in the scope and methods of work of the Department. Many of the activities of the Department had, however, to be restricted on account of the necessity to effect all possible economies in expenditure, as a result of financial stringency.

In the present report, ~~if~~ the Director has attempted to cover the work accomplished or attempted by the Department in various -- directions ever since its inauguration, ~~instead of confining himself strictly to the work of the Department during the year~~, While such a recapitulation is interesting and instructive it would have been ~~more desirable~~ better if the work pertaining to the year had been brought out more prominently in the report. The Director has referred to the necessity of making the Department permanent, strengthening the staff and providing increased grants. These, however, are matters which can be considered only when there is an improvement in the financial out-look.

The report should have confined itself to the work pertaining to the year.

G.O. making the dept permanent has since been issued.

4. Management of Industrial concerns under Departmental control.- There was no addition during the year to the number of industrial - concerns under departmental management. -As already referred to in the previous review, the Metal Factory was transferred to a private -- syndicate and steps were taken during the year to close the accounts of the concern and to dispose of the plant equipment purchased by Government for the manufacture of seamless measures.

Government are not disposed to agree with the opinion expressed by the Director that the results of the working of these concerns deserve to be considered from a different stand-point from that of the ordinary manufacturer whose main object is to make the most profit. No doubt these industrial concerns were originally started as experimental and demonstration -- factories but they have now out-lived that -- stage so that their working (now and in future) will have to be viewed from a strictly commercial point of view. Government consider that the time has arrived when, except in a few directions, work in these factories should be carried on on the same business principles as are adopted by private manufacturers.

Government are aware that in some cases the factories are not suitably equipped and that in some others the factories are handicapped by over-capitalisation. They have since ordered that the fixed and floating assets of each concern be revaluated afresh and all the losses incurred till now in their working be written off so as to enable the concerns to start with a clean sheet. Government trust that whatever the result of the working of these concerns might have been in the past, with the favourable conditions now given, it will be possible to place them on a self-supporting, if not a remunerative, basis.

Central Industrial Workshop. It is reported that the workshop has now a steady flow of orders and that it has been able to inspire confidence in regard to its ability to manufacture

all kinds of machinery. During the year rice mills and various kinds of machinery required for oil and woollen mills and for reeling silk are reported to have been manufactured in the Workshop. Agricultural machinery continued to be manufactured on the same scale as hitherto. The total value of manufactures in the workshops during the year was Rs.1,15,605. The actual working expenses are estimated at Rs.50,964 and the gross profit at Rs.29,000. These figures are however subject to verification. The Director reports that though foreign firms have reduced their prices to almost pre-war level, it would yet be possible to manufacture machinery in the workshop in almost all cases with profit. Government hope that the optimism of the Director in this respect ~~will materialise~~ may be realised. Government note with satisfaction that some of the men trained in the workshop have been able to start small workshops of their own in various centres. The whole question of improving the organization and working of the concern is under the separate consideration of Government. The Director is requested to report separately if schedules of cost for the various kinds of work undertaken by the concern have been prepared and if so how such costs compare generally with those adopted by private manufacturing concerns.

Government Soap Factory. For reasons already published in a communique issued to the Press the negotiations for the transfer of the soap factory to private enterprise ~~have~~ had to be dropped. But Government have again decided

to transfer the Factory to a private company subject to certain conditions which have since been notified to the public. The Factory thus continued to be under departmental management during the year, earned a net profit of nearly Rs.24,000, and was able to wipe out the losses incurred in the previous years. The out-put of the washing and toilet soaps in the Factory does not find mention in the report of the Director. The soaps manufactured in the Factory continue to be popular and to command large sales. There is considerable scope for expanding the business by increasing the out-put, by the erection of the glycerine-recovery plant and by adding certain bye industries such as the manufacture of essential oils, scents etc. But these have to be left to the private enterprise which takes over the Factory to develop.

Weaving Factory. During the year attempts were made to consolidate the work previously done. The experiment with power looms has proved very satisfactory and as a result several private concerns are reported to have been newly established for the manufacture of superior cloths on power looms worked by means of cheap electric power. The factory has introduced several new designs in the market and is also experimenting with the use of Mysore silk on power looms. Preparatory machines and fly shuttle looms of the

value of Rs.30,000 were manufactured and supplied to the public.

In the All-India Weaving Exhibition held at Patna the Department gained several prizes and the first prize of Rs.1,100 was awarded to the Factory for the best set of preparatory machines. This has resulted in numerous enquiries for these machines from all over India. Several students from outside the State have been attracted to the Factory and are undergoing training in it. The value of goods manufactured in the Factory was Rs.82,000 on the whole. The report does not touch upon the working of the sales department attached to the factory nor upon the results of the attempts made to introduce the silk goods manufactured in the factory into English markets which was referred to in the previous year's report.

The Director refers to the need for popularising improved methods of manufacture by starting small but well-equipped factories in different centres throughout the State. This is a move in the right direction and Government will welcome the proposals of the Director in this behalf.

Art Workshop. The Art Workshop was amalgamated with the Central Industrial Workshop and placed under the charge of the Superintendent. The work is carried on on the same lines as hitherto.

It is reported that several new varieties of wood have been tested in the workshop and the possibilities of utilising them in the manufacture of superior articles have been demonstrated. Several new designs and improvements in methods of work have been introduced. The Director has stated that the institution is suffering for want of labour-saving appliances and a

seasoning kiln. The proposals of the Director in this respect are under the consideration of Government. During the year the manufacture of pirns and bobbins was undertaken with success and a large order is reported to have been received for the supply of these articles.

Arts and Crafts Depot. This institution is maintained with the ~~principal~~ main object of familiarising Mysore manufactures in the outside markets, ~~and~~ Incidentally it also affords employment to a large number of skilled artisans of the State. The concern is gradually becoming self-supporting and its monthly sales amount to Rs.4,000 on the average. The Director has proposed that a Branch of the Depot should be opened in Bombay and that arrangements should be made ~~for~~ distributing work among the workers in the various parts of the State and ~~affording~~ them facilities in the ~~matter~~ shape of advances of money and purchase of the manufactured articles. Government ~~would be glad to have~~ with the definite recommendations of the Director in these directions are awaited.

District Industrial Workshops.

The workshop at Shimoga which started work in 1919 is continuing to do useful work. The value of work turned out during the year amounted to nearly Rs.6,000, the maintenance charges amounting to Rs.4,700. The Workshops at Tumkur and Kolar were under erection; that at Tumkur having been completed and work started at

the close of the year. The question of starting a similar workshop in Kadur is under consideration.

5. Experimental Industrial concerns under departmental control and new industries investigated by the Department.

Sugar-cane mills. That the sugarcane mills established by private individuals on the advice of the Industries Department and the mills installed by the Dept itself in certain places can be worked on paying lines yet remains to be demonstrated. No action appears to have been taken on the lines suggested by Government in the review of the work of the Department in this respect last year. ~~The Director has summarily disposed of~~ the recommendations of the Indian Sugar Committee have been summarily headed with the bare remark ~~by~~ that they are not of much value not being based upon an examination of the experiments carried out locally. But the Department has not up to date pushed these experiments on to a conclusion and demonstrated their success. The only installation that did any work was the one at Hudi belonging to Mr.Guruva Reddy. The owner is stated to have been able to recoup all his expenses of manufacturing 5,000 maunds of jaggery working for about 70 days, the cost of making jaggery amounting to about 5 annas a maund. The installation at Chennarayapatna commenced work late in the year and the result of it working still remains to be seen. The steam heating plant at Agaram has been lying idle for the last 4 years. A portable sugar machine plant is reported to have been manufactured in the workshop and supplied to a

~~private person who has undertaken~~ to test it. Govt. should take more vigorous action if called for to prove that these installations

~~Can~~ be worked with profit or ~~Shall~~ the work ~~shall~~ be abandoned ~~and~~ The recurring expenditure thereon avoided.

New Industries investigated.

The Industrial Chemist is reported to have succeeded in the extraction of essential oils from Bellary leaves, Devadari, Chigatmari and Chumbalika woods. The essential oils extracted from Bellary leaves is expected to command good prices. These experiments as well as the experiments undertaken by him in developing and improving the lac industry will be watched by Government with interest.

The other industries on the investigation of which the department was engaged during the year, were the manufacture of porcelain ware, of sodium carbonate from alkaline earth, the establishment of a sugar factory and certain forest industries. As regards the manufacture of porcelain ware Government have already issued orders granting certain concessions to Messrs. Manickavelu Mudaliar & Sons for extracting kaolin from certain reserved areas in the Bangalore District. Government have also notified the grant of certain concessions to any private company wishing to come forward to put to industrial use the lime stone deposits near Oblapur. The manufacture of sodium carbonate from the alkaline earth found round about Mandya and Chamarajanagar has been receiving the attention of both the Geological and

well as the Industries Departments for the past some years; but a definite scheme has yet to be prepared and submitted to Government. Government trust that the question will be further investigated by the Industrial Chemist and discussed in the Board of Scientific Research and Advice, and a definite report submitted to Government.

The question of starting a sugar factory is one largely left to private enterprise. If a definite scheme is placed before Government they will be prepared to consider it ~~=~~ and to afford all ~~responsible~~ reasonable facilities in the matter of ~~the grant of~~ the land, etc. required

As regards forest industries, that relating to ~~m~~ the manufacture of paper pulp from bamboos has had to be deferred. Even the manufacture of straw boards from various waste materials requires the investment of a large capital. Government cannot see their way in the immediate future ~~to~~ embarking upon these enterprises.

Government are pleased to note that the Director of Industries has prepared a list of new industrial schemes for which he considers there are ample possibilities in the State. If the department can enlist the co-operation of private persons to start at least two or three out of the ten schemes mentioned by him, Government have no doubt that ~~their~~ considerable headway will have been made in the development of industrial enterprise in the State.

6. Assistance to industrie & trade

Technical Assistance :—

6. Assistance to Industrial Trade
Technical Assistance

The Dept. has helped handloom weavers in the State by the demonstration of improved methods of weaving and supply of looms and loom parts. During the year 520 new Fly - Shuttle looms were erected bringing the total of such looms in use to 4434. The Director estimates that as a result of this improvement alone there has been an increase in out-turn of woven cloth of the value of Rs, 3 lakhs. Technical advice was given to owners of pumping installations, ricemills, flour mills etc. Owing to the rise in price of crude oil and other accessories, the pumping installations have not yet proved successful in many instances. The department has had to advise the postponement of new installations until the existing adverse conditions are removed. The rice mills scattered throughout the State are, with few exceptions, all working satisfactorily especially those situated in the cities of Mysore and Bangalore and using electrical energy. Many of the machinery in use are those manufactured in the Central Industrial Workshop. All the four mills in the Mysore and Bangalore cities as also those at Davangere, Chitaldrug, Thirthahalli and Rampur in Shimoga District are working satisfactorily. So also the several - Anderson Oil Expellers in use. The department was responsible for introducing six smaller installations of rotary oil mills during the year and a few ground-nut decorticators and some small gins which have given satisfaction

The several private tile factories, all of which are worked on a comparatively small scale have done very well. The department took up 9 installations during the year and completed 5. In addition to the help thus rendered the department has lent to private employers the services of trained men.

Financial assistance. Loans and Hire purchase applications amounting to Rs. 35,000 and Rs. 41,200 respectively were sanctioned under the Industrial Takavi Loans Rules during the year. Out of a sum of Rs. 1,90,000 that was brought on demand during the year, a sum of Rs. 57,000 was recovered towards principal and Rs. 20,000 towards interest leaving a heavy balance of Rs. 1,13,000 still to be recovered. The Director has given certain reasons for these large outstandings, but Government ~~are not satisfied~~ feel consider that sufficiently prompt effective action has not been taken for their recovery. The further grant of such assistance to industrial concerns will have to largely depend upon the recoveries made out of the loans already sanctioned and Government trust that the Director will take active steps for the recovery of all overdue instalments of loan without further delay.

7- Condition of large Industrial Concerns receiving State Aid. Of the large State-Aided Concerns, the Bangalore Woollen Mills and the Maharaja Mills have as usual, done good business. Business in the Mysore Tannery has received a rude check on account of the slump in the leather trade. The Sri Krishnarajendra Mills, near Nagamangala, have not yet started work. The Mysore Pharmaceuticals

have been granted further concessions in the matter of supply of alcohol. The Mysore Economic Union has failed to make any progress and the loan given to the concern has been ordered to be recovered forthwith. The Thirthahalli Tile Factory has proved a ~~sad~~ dismal failure ~~till now~~ so far ~~and~~ Government have directed that the concern should be handed back to the Directors for management after paying up the Government dues. The work done in the Factory under departmental management is not at all satisfactory. The Aryan Hosiery Factory was under the management of the Department during the year and goods of the value of Rs. 25,000 were manufactured and sales to the extent of Rs. 22,000 effected. Government have since ordered the transfer of the Factory subject to certain conditions to the owner. The work done in the Art Litho Press cannot be considered to be very satisfactory the only work taken on hand being the preparation of tank maps for the Public Works Department. The Director is requested to submit definite proposals as to how the work of the Press might be developed, and in the meantime it is necessary to take adequate steps for safe-guarding the loan advanced by Government.

This may be omitted as I may make some observations if published like this. I agree

8. Condition of Minor Non-Factory Indus-tries-. The Minor Industries

in existence in the State are - Silk Weaving, Sandalwood Carving, Inlay Work, Bell Metal Work, - Lacquerware, Wood Work, ~~Ivory Metal Work~~ Basket Manufactures and Shoe-Making. There is great scope for the improvement of methods of work in these Industries and it should form one of the main functions of the department to render suitable technical and financial assistance to these artisans. The work done by the department in this respect during the year consisted in helping the Sandalwood Carvers in finding a market for their wares and furnishing them with new designs, supplying ~~of~~ power-driven lathes for lacquerware work and studying the general conditions under which the industries are practised now. In this connection Government are of opinion that the formation of trade schools in different suitable centres ~~would~~ are likely to prove of great value to develop and improve such industries.

The Director is requested to study the question in detail and submit comprehensive proposals for the orders of Govt. with particular reference to the correlation of work carried on in the Art Workshop and the Chamarajendra Technical Institute with that in the Trade Schools.

9. New Floatations. A few industries of magnitude were started during the year of which mention may be made of the Kaiser-i-Hind Woollen Mills with a capital of Rs.4,00,000. ~~Another Woollen Mills with a capital of Rs.4,00,000.~~ Another Woollen Mills, as per last report under erection by Messrs. Maiikameelu Mudaliar. Messrs. B. K. Subbaraya Chetty & Son are reported to be engaged in enlarging their wool spinning plant. A private Company is attempting the manufacture of white lead. The Mysore Paints Ltd., propose undertaking the manufacture of paints from ochres on a large scale and are ~~busy~~ now engaged in collecting the required capital. The Mysore Clay Works Ltd., has been formed with the object of manufacturing fire bricks and other similar articles and have been given prospecting licenses over areas containing kaolin ~~which were~~ hitherto reserved for the Department.

10. Work of the Commercial Section.

The Section continued to be under the Deputy Director Mr. K. H. Ramaiah. Trade conditions during the year were, in common with the rest of India, most unfavourable. The total trade of the State has shown a decrease of Rs.2.5 crores in

comparison with the previous year, almost the whole of the decrease being under exports. The Section issued the usual review of Railborne trade statistics and a statement showing the general level of prices of all commodities. Beyond this x no work of any importance was attempted in the section.

The question of the location of the Commercial Museum in a more central locality so as to be of real benefit to the Commercial Community is under the consideration of Govt. The Director reports that the conditions of labour during the year were satisfactory, and that wages are still high ~~and that~~ there is yet no lack of employment. An anticipated strike of employees in the Mysore Tannery during the year was averted by the tact on the part of the management. Housing of labour is still unsatisfactory and continues to be a very difficult problem. One of the principal functions of the Commercial Section is to investigate the conditions of labour in the cities as well as x in the moffusil but such work has not till now been attempted. Govt. trust that the Director will examine the work of the Section and take all necessary steps to place it on a better working basis.

10. G e n e r a l. Govt. note with satisfaction that a detailed survey of the various industrial concerns and installations scattered throughout the State has been made by the Director. This survey has brought out the fact that in almost all cases regular accounts are not maintaine to show whether the working of these installations has proved of real benefit to the x owners. But the general impressi

is that the owners of these installations are to a large extent satisfied with them though it is possible that with better financial equipment and more business acumen the installations can be made to yield better results and ~~better~~ increased profits.

There has been a wide spread complaint that a more stringent enforcement of the Weigths and Measures Regulation is called for. Govt. have been reluctant to ~~enforce~~ enforce the provisions of the Regulation strictly hitherto for want of facilities for the adequate supply of standard weights and measures to the public which has to precede any action regarding the enforcement of the Regulation. Arrangements have now been made for the supply in sufficient quantities of Standard Seamless Measures and -- Standard Weights. The Mysore Metal Factory have undertaken to manufacture the measures and the ~~of~~ equipment purchased by the Govt. for these purposes has been transferred to the Factory. The manufacture of standard weights has been undertaken in the Central Industrial Workshop. Govt. trust that a sufficient supply of weights and measures will be available and that the inconvenience that at present exists will to a large extent be removed before long.

Govt. ~~must~~ observe that the Indian Factories Act has been lately amended and that many of the recommendations of the Washington Labour Conference etc., have been incorporated in the new Act. It

It seems necessary that the Mysore Factories Regulation should also be similarly amended. The Director is requested to study the question and submit ~~the~~ recommendations ~~to~~ for the consideration of Government ~~for orders.~~

Conclusion. Govt. have passed orders transferring the control of Industrial Education from the Education to the Industries and Commerce Department with effect from the beginning of the current official year. The imperative necessity for economising expenditure in all directions has compelled Govt. to effect considerable retrenchments in the departmental staff and the budget grants made to it. But Govt. trust to the energy and enthusiasm of the Offg. Director, Mr. D'Souza, to ensure that the activities of the Department continue unimpaired and are, wherever possible, extended along new directions by enlisting the co-operation of private enterprise.

31-11-22

24.10.22

Secretary to Govt.
Genl. Department.

To

The Offg. Director of Industries and Commerce in Mysore.

The Heads of Departments.

The Deputy Commissioners of Districts.

Press Table.

ACH.

eedings of the Government of His Highness the
Maharaja of Mysore.

Read:-

The report on the working of the Department of Industries and Commerce during the year 1921-22 received with letter No.22 dated the 10th September 1923 from the Officiating Director of Industries and Commerce in Mysore.

Order No. Ic 3148-207/Ic 91-22-3

Dated Bangalore, the 14th November 1922.

Recorded. The report which was due in the Secretariat on the 31st August 1922 was received with a delay of 10 days.

2. Organisation of the Department. Mr.P.G.D'Souza assumed charge of the office of the Director on the 4th October 1921 - after his return from the deputation to Western Countries - from Mr.C.S. Iyer. Mr.Ganesha Iyer was transferred to the College ing as a temporary measure and worked in the University the year. On the transfer of the Metal Factory to erprise, Mr.M.Lakshminarasimhaiya was reverted to the Public Works Department, the Art Workshop being amalgamated with the Central Industrial Workshop. Mr.S.V.Ramaswami, Superintendent of Industries, continued to be employed by the Mysore Premier Metal Factory.

The Officiating Director toured for 63 days inspecting the various industrial concerns assisted by Government and examining the scope for expansion of work and also enlisting the co-operation of private people in furthering the objects of the Department.

3. Changes in the lines of work of the Department.- There have not been any important changes in the scope and methods of work of the Department. Many of the activities of the Department had, however to be restricted on account of the necessity to effect all possible economies in expenditure, as a result of financial stringency.

In the present report, the Director has attempted to cover the

work accomplished or attempted by the Department in various directions ever since its inauguration. ~~instead of confining it to the work of the department during the year.~~ The report should have confined itself to the work pertaining to the year.

4. Management of Industrial concerns under Departmental control. There was no addition during the year to the number of industrial concerns under departmental management. As already referred to in the previous review, the Metal Factory was transferred to a private syndicate and steps were taken during the year to close the accounts of the concern and to dispose of the plant equipment purchased by Government for the manufacture of seamless measures.

Government are not disposed to agree with the opinion expressed by the Director that the results of the working of these concerns deserve to be considered from a different stand-point from that of the ordinary manufacturer whose main object is to make the most profit. No doubt these industrial concerns were originally started as experimental and demonstration factories but/have now out-lived that stage, so that their working will have to be viewed from a strictly commercial point of view in future as far as possible.

Central Industrial Workshop. It is reported that the workshop has now a steady flow of orders and that it has been able to inspire confidence in regard to its ability to manufacture all kinds of machinery. During the year rice mills and various kinds of machinery required for oil and woollen mills and for reeling silk are reported to have been manufactured in the workshop. Agricultural machinery continued to be manufactured on the same scale as hitherto. The total value of manufactures in the workshops during the year was Rs.1,15,605. The actual working expenses are estimated at Rs.60,004 and the gross profits at Rs.20,000. These figures are however subject to verification. The Director reports that though foreign firms have reduced their prices to almost pre-war level, it would yet be possible to manufacture machinery in the workshop in almost all cases with profit. Government hope that the optimism of the Director in this respect will be justified by results.

Government Soap Factory. For reasons already published in a communiqué issued to the Press the negotiations afoot for the transfer of the Soap Factory to private enterprise had to be dropped but Government have again decided to transfer the factory to a private company subject to certain conditions which have since been notified to the public. The factory thus continued to be u under departmental management during the year, earned a net profit of nearly Rs.24,000, and was able to wipe off the losses incurred in the previous years.

Weaving Factory. During the year attempts were made to consolidate the work previously done. The experiment with power looms has proved very satisfactory and as a result several private concerns are reported to have been newly established for the manufacture of superior cloths on power looms worked by means of cheap electric power. The factory has introduced several new designs in the market and is also experimenting with the use of Mysore silk on power looms. Preparatory machines and fly shuttle looms of the value of Rs.20,000 were manufactured and supplied to the public.

In the All-India Weaving Exhibition held at Patna the Department gained several prizes and the first prize of Rs.1,100 was awarded to the factory for the best set of preparatory machines. This has resulted in numerous enquiries for those machines from all over India. Several students from outside the State have been attracted to the factory and are undergoing training in it. The value of goods manufactured in the factory was Rs.82,000 on the whole. The report does not touch upon the working of the sales department attached to the factory nor upon the results of the attempts made to introduce the silk goods manufactured in the factory into English markets which was referred to in the previous year's report.

The Director refers to the need for popularising improved methods of manufacture by starting small but well-equipped factories in different centres throughout the State. This is a move in the right direction and Government will welcome the proposals of

the director in this behalf.

Art Workshop. The Art workshop was amalgamated with the central Industrial Workshop and placed under the charge of the superintendent. The work is carried on on the same lines as hitherto.

It is reported that several new varieties of wood have been tested in the workshop and the possibilities of utilising them in the manufacture of superior articles have been demonstrated. Several new designs and improvements in methods of work have been introduced. The Director states that the institution is suffering for want of labour-saving appliances and a seasoning kiln. The proposals of the Director in this respect are under the consideration of Government

Arts and Crafts Depot. This institution is maintained with the main object of familiarising Mysore manufactures in the outside markets. Incidentally it also affords employment to a large number of skilled artisans of the State. The concern is gradually becoming self-supporting and its monthly sales amount to Rs.4,000 on the average. The Director has proposed that a Branch of the depot should be opened in Bombay and that arrangements should be made to distribute work among the workers in the various parts of the State and afford them facilities in the ~~matter~~ shape of advances of money and by purchase of the manufactured articles. Definite recommendations of the Director in these directions are awaited.

District Industrial Workshops.

The workshop at Shimoga which started work in 1919 is continuing to do useful work. The value of work turned out during the year amounted to nearly Rs.6,000, the maintenance charges amounting to Rs.4,700. The workshops at Tumkur and Kolar were under erection during the year, that at Tumkur having been completed and work started at the close of the year. The question of starting a similar workshop in Kadur is under consideration.

5. Experimental Industrial concerns under departmental control and and new industries investigated by the Department.

Sugar-cane mills. That the sugarcane mills established by private

individuals on the advice of the Industries Department and the mills installed by the Department itself in certain places can be worked on paying lines yet remains to be demonstrated. No action appears to have been taken on the lines suggested by Government in the review of the work of the Department in this respect last year. The recommendations of the Indian Sugar Committee have been summarily treated with the brief remark that they are not of much value not being based upon an examination of the experiments carried out locally but the Department has not up to date pushed these experiments on to a conclusion and demonstrated their success. Government consider that more vigorous action is called for to prove that these installations can be worked with profit or that the work should be abandoned and the recurring expenditure thereon avoided.

New Industries investigated.

The Industrial Chemist is reported to have succeeded in the extraction of essential oils from Bellary leaves, Devadari, Chigattari and Chumbalika woods. The essential oil extracted from Bellary leaves is expected to command good prices. These experiments as well as the experiments undertaken by him in developing and improving the lac industry will be watched by Government with interest.

The other industries on the investigation of which the department was engaged during the year, were the manufacture of porcelain ware, of sodium carbonate from alkaline earth, the establishment of a sugar factory and certain forest industries. As regards the manufacture of porcelain ware Government have already issued orders granting certain concessions to Messrs. Manickavelu Mudaliar & Sons for extracting kaolin from certain reserved areas in the Bangalore District. Government have also notified the grant of certain concessions to any private company wishing to come forward to put to industrial use the lime stone deposits near Chiapur. The manufacture of sodium carbonate from the alkaline earth found round about Mandya and Chamarajanagar has been receiving the attention of both the Geological and the Industries Departments for the past some years; but a definite scheme has yet to be prepared and submitted to Government. Government trust that the question will be further

investigated by the Industrial Chemist and discussed in the Board of Scientific Research and Advice, and a definite report submitted to Government.

The question of starting a sugar factory is one largely left to private enterprise. If a definite scheme is placed before Government they will be prepared to consider it and to afford all reasonable facilities in the matter of the land required etc.

As regards forest industries, that relating to the manufacture of paper pulp from bamboos has had to be deferred. Even the manufacture of straw boards from various waste materials requires the investment of a large capital. Government cannot see their way in the immediate future to embark upon these enterprises.

Government are pleased to note that the Director of Industries has prepared a list of new industrial schemes for which he considers there are ample possibilities in the State. If the department can enlist the co-operation of private persons to start at least two or three out of the ten schemes mentioned by him, Government have no doubt that considerable headway will have been made in the development of industrial enterprise in the State.

6. Assistance to industries and trade.

Technical Assistance. The Department has helped handloom weavers in the State by the demonstration of improved methods of weaving and supply of looms and loom parts. During the year 520 new fly shuttle looms were erected bringing the total of such looms in use to 4434. The Director estimates that as a result of this improvement alone there has been an increase in out-turn of woven cloth of the value of Rs.3 lakhs. Technical advice was given to owners of pumping installations, ricemills, flour mills etc. Owing to the rise in price of crude oil and other accessories, the pumping installations have not yet proved successful in many instances. The department has had to advise the postponment of new installations until the existing adverse conditions are removed or disappear. The rice mills scattered throughout the State are, with few exceptions, all working satisfactorily especially those

situated in the cities of Mysore and Bangalore and using electric energy. Many of the machinery in use are those manufactured in the Central Industrial Workshop. All the flour mills in Mysore and Bangalore cities as also those at Davangere Chitaldrug, Shimoga Hassan and Kadur in Chikmagalur district are working satisfactorily. So also the several Anderson Oil Expellers in use. The department was responsible for introducing six smaller installations of rotary type oil mills during the year and a few ground-nut decorticators and some small gins which have given satisfaction. The several private tile factories, all of which are worked on a comparatively small scale have done very well. The department took up 9 installations during the year and completed 5. In addition to the help thus rendered the department has lent to private employers the services of trained men.

Financial assistance: Loans and hire purchase applications amounting to Rs.25,200 and Rs.41,200 respectively were sanctioned under the Industrial Loans Rules during the year. Out of a sum of Rs.1,00,000 that was brought on demand during the year, nearly a sum of Rs.57,000 was recovered towards principal and Rs.20,000 towards interest leaving a heavy balance of Rs.1,10,000 still to be recovered. The Director has given certain reasons for these large outstandings, but Government do not feel that sufficiently prompt and effective action has been taken for their recovery. The further grant of such assistance to industrial concerns will have to be [illegible] the recoveries and out of the loans already sanctioned and Government trust that the Director will take active steps for the recovery of all overdue instalments of loan without further delay.

7. Condition of large Industrial Concerns receiving State Aid.

Of the large State-Aided Concerns, the Bangalore Woollen Mills and the Maharaja Mills have, as usual, done good business. Business in the Mysore Tannery has received a rude check on account of the slump in the leather trade. The Sri Krishnarajendra Mills near Mysore City have not yet started work. The Mysore Pharmaceuticals have been granted further concessions in the matter of the supply

of alcohol. The Mysore Economic Union has failed to make any progress and the loan given to the concern has been ordered to be recovered forthwith. The Thirthahalli Tile Factory having proved a dismal failure so far Government have directed that the concern should be handed back to the Directors for management after paying up the Government dues The Aryan Hosiery Factory was under the management of the Department of the during the year and goods of the value of Rs. 25,000 were manufactured and sales to the extent of Rs. 22,000 effected. Government have since ordered the transfer of the Factory to the owner subject to certain conditions. The work done in the Art Litho Press cannot be considered to be very satisfactory the only work taken on hand being the preparation of tank maps for the Public Works Department. The Director is requested to submit definite proposals as to how the work of the press might be developed, and in the meantime it is necessary to take adequate steps for safe-guarding the loan advanced by Government.

8. Condition of Minor Non-Factory Industries.- The Minor Industries in existence in the State are Silk Weaving, Sandalwood Carving, Inlay Work, Bell Metal Work, Lacquerware, Wood Work, Basket Manufacture and Shoe Making. There is great scope for the improvement of methods of work in these industries and it should form one of the main functions of the department to render suitable technical and financial assistance to these artisans. The work done by the department in this respect during the year consisted in helping the Sandalwood Carvers in finding a market for their wares and furnishing them with new designs, supplying power-driven lathes for lacquerware work and studying the general conditions under which the industries are practised now. In this connection Government are of opinion that the formation of trade schools in different suitable centres are likely to prove to be of great value in developing and improving such industries. The

The Director is requested to study the question in detail and submit comprehensive proposals for the orders of Government with particular reference to the correlation of work carried on in the Art Workshop and the Chamarajendra Technical Institute with that in the Trade Schools.

9. New Floatations. A few industries of magnitude were started during the year of which mention may be made of the Kaiser-i-Hind Woolen Mills with a capital of Rs. 4.00.000. Another Woolen Mill is being put up by Messrs. Manikavelu Mudaliar. Messrs. B.K. Subbaraya Chetty & Son are reported to b engaged in enlarging their wool spinning plant. A private Company is attempting the manufacture of white lead. The Mysore Paints Ltd., propose undertaking the manufacture of paints from ochres on a large scale and are now engaged in collecting the required capital. The Mysore Clay Works Ltd., has been form ed with the object of manufacturing fire bricks and other similar articles and have been given prospecting licenses over areas containing kaolin hitherto reserved for the Department

10. Work of the Commercial Section. The Section continued to be under the Deputy Director Mr. K.H. Ramaiah. Trade conditions during the year were, in common with the rest of India, most unfavourable. The total trade of the State has shown a decrease of Rs. 2.5 crores in comparison with the previous year almost the whole of the decrease being under exports. The Section issued the usual review of Railborne trade statistics and a statement showing the general level of prices of all commodities. Beyond this no work of any importance was attempted in the section.

The question of the location of the Commercial Museum in a more central locality so as to be of real benefit to the Commercial Community is under the consideration of Government. The Director reports that the conditions of labour during the year were satisfactory and that though wages are still high there is yet no lack of employment. An anticipated strike of employees

in the Mysore Tannery during the year was averted by the tact on the part of the management. Housing of labour is still unsatisfactory and continues to be a very difficult problem. One of the principal functions of the Commercial Section is to investigate the conditions of labour in the cities as well as in the moffusil but such work has not been attempted. Government trust that the Director will examine the work of the Section and take all necessary steps to place it on a better working basis.

14. General. Government note with satisfaction that a detailed survey of the various industrial concerns and installations scattered throughout the State has been made by the Director. This survey has brought out the fact that in almost all cases regular accounts are not maintained to show whether their working has proved of real benefit to the owners. But the general impression is that the owners of these installations are to a large extent satisfied with them though it is possible that with better financial equipment and more business acumen the installations can be made to yield better results and ~~improved~~ increased profits.

There has been a wide spread complaint that a more stringent enforcement of the Weights and Measures Regulation is called for. Government have been reluctant to enforce the provisions of the Regulation strictly hitherto for want of facilities for the adquate supply of standard weights and measures to the public which has to precede any action regarding the enforcement of the Regulation. Arrangements have now been made for the supply in sufficient quantities of Standard Seamless Measures and Standard Weights. The Mysore Metal Factory have undertaken to manufacture the measures and the equipment purchased by the Government for these purposes has been transferred to the Factory. The manufacture of standard

Central Industrial Workshop.

Government trust that a sufficient supply of weights and measures will be available and that the inconvenience that at present exists will to a large extent be removed before long.

Government observe that the Indian Factories Act has been lately amended and that many of the recommendations of the Washington Labour Conference etc., have been incorporated in the New Act. It seems necessary that the Mysore Factories Regulation should also be similarly amended. The Director is requested to study the queation and submit his recommendations for the consideration of Government.

Conclusion. Government have passed orders transferring the control of Industrial Education from the Education to the Industries and Commerce Department with effect from the beginning of the current official year. The imperative necessity for economising expenditure in all directions has compelled Government to effect considerable retrenchments in the departmental staff and the budget grants made to it. But Government trust to the energy and enthusiasm of the Offg. Director Mr. D'Souza, to ensure that the activities of the Department continue unimpaired wherever possible, extended along new directions by the co-operation of private enterprise."

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for Secretary to Government,
General Department.

tor of Industries and Commerce in Mysore.

The Offg. Dir rtments

The Heads of De oners of Districts.

The Deputy Commis

ADMINISTRATION REPORT OF THE DEPARTMENT OF INDUSTRIES AND COMMERCE FOR THE YEAR 1921-22.

WITH THE GOVERNMENT REVIEW THEREON.

Government of His Highness the Maharaja of Mysore.

GENERAL AND REVENUE DEPARTMENTS.

G. O. No. I. C. 3148-207—I. & C. 91-22-3, dated 16th November 1922.

Report on the working of the Department of Industries and Commerce.

Reviews the —— for the year 1921-22.

READ—

The Report on the working of the Department of Industries and Commerce during the year 1921-22, received with letter No. 22, dated the 18th September 1922, from the Officiating Director of Industries and Commerce in Mysore.

ORDER No. I. C. 3148-207—I. & C. 91-22-3, DATED 16TH NOVEMBER 1922.

Recorded. The report which was due in the Secretariat on the 31st August 1922 was received with a delay of 18 days.

2. *Organisation of the Department.*—Mr. P. G. D'Souza assumed charge of the office of the Director on the 4th October 1921 after his return from the deputation to Western Countries from Mr. C. S. Balasundaram Iyer. Mr. Ganesha Iyer was transferred to the College of Engineering as a temporary measure and worked in the University throughout the year. On the transfer of the Metal Factory to private enterprise, Mr. N. Lakshminarasimhaiya was reverted to the Public Works Department, the Art Workshop being amalgamated with the Central Industrial Workshop. Mr. S. V. Ramaswami, Superintendent of Industries, continued to be employed by the Mysore Premier Metal Factory.

The Officiating Director toured for 63 days inspecting the various industrial concerns assisted by Government and examining the scope for expansion of work and also enlisting the co-operation of private people in furthering the objects of the Department.

3. *Changes in the lines of work of the Department.*—There have not been any important changes in the scope and methods of work of the Department. Many of the activities of the Department had, however, to be restricted on account of the necessity to effect all possible economies in expenditure, as a result of financial stringency.

In the present report, the Director has attempted to cover the work accomplished or attempted by the Department in various directions ever since its inauguration. The report should have confined itself to the work pertaining to the year.

4. *Management of Industrial concerns under Departmental control.*—There was no addition during the year to the number of industrial concerns under departmental management. As already referred to in the previous review, the Metal Factory was transferred to a private syndicate and steps were taken during the year to close the accounts of the concern and to dispose of the plant equipment purchased by Government for the manufacture of seamless measures.

Government are not disposed to agree with the opinion expressed by the Director that the results of the working of these concerns deserve to be considered from a different stand-point from that of the ordinary manufacturer whose main object is to make the most profit. No doubt these industrial concerns were originally started as experimental and demonstration factories but they have now out-lived that stage, so that their working will have to be viewed from a strictly commercial point of view in the future as far as possible

Central Industrial Workshop.—It is reported that the workshop has now a steady flow of orders and that it has been able to inspire confidence in regard to its ability to manufacture all kinds of machinery. During the year rice mills and various kinds of machinery required for oil and woollen mills and for reeling silk are reported to have been manufactured in the workshop. Agricultural machinery continued to be manufactured on the same scale as hitherto. The total value of manufactures in the workshops during the year was Rs. 1,15,605. The actual working expenses are estimated at Rs. 50,864 and the gross profits at Rs. 29,000. These figures are however subject to verification. The Director reports that though foreign firms have reduced their prices to almost prewar level, it would yet be possible to manufacture machinery in the workshop in almost all cases with profit. Government hope that the optimism of the Director in this respect will be justified by results.

Government Soap Factory.—For reasons already published in a communique issued to the Press the nogotiations afoot for the transfer of the Soap Factory to private enterprise had to be dropped. But Government have again decided to transfer the Factory to a private company subject to certain conditions which have since been notified to the public. The Factory thus continued to be under departmental management during the year, earned a net profit of nearly Rs. 24,000, and was able to wipe off the losses incurred in the previous years.

Weaving Factory.—During the year attempts were made to consolidate the work previously done. The experiment with power looms has proved very satisfactory and as a result several private concerns are reported to have been newly established for the manufacture of superior cloths on power looms worked by means of cheap electric power. The factory has introduced several new designs in the market and is also experimenting with the use of Mysore silk on power looms. Preparatory machines and fly shuttle looms of the value of Rs. 30,000 were manufactured and supplied to the public.

In the All-India Weaving Exhibition held at Patna the Department gained several prizes and the first prize of Rs. 1,100 was awarded to the Factory for the best set of preparatory machines. This has resulted in numerous enquiries for these machines from all over India. Several students from outside the State have been attracted to the Factory and are undergoing training in it. The value of goods manufactured in the Factory was Rs. 82,000 on the whole. The report does not touch upon the working of the sales department attached to the factory nor upon the results of the attempts made to introduce the silk goods manufactured in the factory into English markets which was referred to in the previous year's report.

The Director refers to the need for popularising improved methods of manufacture by starting small but well-equipped factories in different centres throughout the State. This is a move in the right direction and Government will welcome the proposals of the Director in this behalf.

Art Workshop.—The Art workshop was amalgamated with the Central Industrial Workshop and placed under the charge of the Superintendent. The work is carried on the same lines as hitherto.

It is reported that several new varieties of wood have been tested in the workshop and the possibilities of utilising them in the manufacture of superior articles have been demonstrated. Several new designs and improvements in methods of work have been introduced. The Director states that the institution is suffering for want of labour-saving appliances and a seasoning kiln. The proposals of the Director in this respect are under the consideration of Government.

Arts and Crafts Depot.—This institution is maintained with the main object of familiarising Mysore manufactures in the outside markets. Incidentally it also affords employment to a large number of skilled artisans of the State. The concern is gradually becoming self-supporting and its monthly sales amount to Rs. 4,000 on the average. The Director has proposed that a Branch of the Depot should be opened in Bombay and that arrangements should be made to distribute work among the workers in the various parts of the State and afford them facilities in the shape of advances of money and by purchase of the manufactured articles. Definite recommendations of the Director in these directions are awaited.

No. I.C. 3148-207—I. & C. 91-22-3, dated 16th November 1922.

District Industrial Workshops.—The workshop at Shimoga which started work in 1919 is continuing to do useful work. The value of work turned out during the year amounted to nearly Rs. 6,000, the maintenance charges amounting to Rs. 4,700. The workshops at Tumkur and Kolar were under erection during the year, that at Tumkur having been completed and work started at the close of the year. The question of starting a similar workshop in Kadur is under consideration.

5. *Experimental Industrial concerns under departmental control and new industries investigated by the Department.*—

Sugar-cane mills.—That the sugarcane mills established by private individuals on the advice of the Industries Department and the mills installed by the Department itself in certain places can be worked on paying lines yet remains to be demonstrated. No action appears to have been taken on the lines suggested by Government in the review of the work of the Department in this respect last year. The recommendations of the Indian Sugar Committee have been summarily treated with the bare remark that they are not of much value not being based upon an examination of the experiments carried out locally. But the Department has not up-to-date pushed these experiments on to a conclusion and demonstrated their success. Government consider that more vigorous action is called for to prove that these installations can be worked with profit or that the work should be abandoned and the recurring expenditure thereon avoided.

New Industries investigated.—The Industrial Chemist is reported to have succeeded in the extraction of essential oils from Bellary leaves, Devadari, Chigatmari and Chumbalika woods. The essential oil extracted from Bellary leaves is expected to command good prices. These experiments as well as the experiments undertaken by him in developing and improving the lac industry will be watched by Government with interest.

The other industries on the investigation of which the Department was engaged during the year, were the manufacture of porcelain ware, of sodium carbonate from alkaline earth, the establishment of a sugar factory and certain forest industries. As regards the manufacture of porcelain ware Government have already issued orders granting certain concessions to Messrs. Manickavelu Mudaliar & Sons for extracting kaolin from certain reserved areas in the Bangalore District. Government have also notified the grant of certain concessions to any private company wishing to come forward to put to industrial use the lime stone deposits near Oblapur. The manufacture of sodium carbonate from the alkaline earth found about Mandya and Chamarajanagar has been receiving the attention of both the Geological and the Industries Departments for the past some years; but a definite scheme has yet to be prepared and submitted to Government. Government trust that the question will be further investigated by the Industrial Chemist and discussed in the Board of Scientific Research and Advice, and a definite report submitted to Government.

The question of starting a sugar factory is one largely left to private enterprise. If a definite scheme is placed before Government they will be prepared to consider it and to afford all reasonable facilities in the matter of the land required, etc.

As regards forest industries, that relating to the manufacture of paper pulp from bamboos has had to be deferred. Even the manufacture of straw boards from various waste materials requires the investment of a large capital. Government cannot see their way in the immediate future to embark upon these enterprises.

Government are pleased to note that the Director of Industries has prepared a list of new industrial schemes for which he considers there are ample possibilities in the State. If the department can enlist the co-operation of private persons to start at least two or three out of the ten schemes mentioned by him, Government have no doubt that considerable headway will have been made in the development of industrial enterprise in the State.

6. *Assistance to industries and trade.*—

Technical Assistance.—The Department has helped handloom weavers in the State by the demonstration of improved methods of weaving and supply of looms and loom parts. During the year 520 new Fly Shuttle looms were erected bringing the total of such looms in use to 4,434. The Director estimates that as a result of this improvement alone there has been an increase in out-turn of woven cloth of the value

of Rs. 3 lakhs. Technical advice was given to owners of pumping installations, rice mills, flour mills, etc. Owing to the rise in price of crude oil and other accessories, the pumping installations have not yet proved successful in many instances. The department has had to advise the postponement of new installations until the existing adverse conditions are removed or disappear. The rice mills scattered throughout the State are, with few exceptions, all working satisfactorily especially those situated in the cities of Mysore and Bangalore and using electrical energy. Many of the machinery in use are those manufactured in the Central Industrial Workshop. All the flour mills in Mysore and Bangalore Cities as also those at Davangere, Chitaldrug, Tirthahalli and Rampur in Shimoga District are working satisfactorily. So also the several Anderson Oil Expellers in use. The department was responsible for introducing six smaller installations of rotary oil mills during the year and a few ground-nut decorticators and some small gins which have given satisfaction. The several private tile factories, all of which are worked on a comparatively small scale have done very well. The department took up 9 installations during the year and completed 5. In addition to the help thus rendered the department has lent to private employers the services of trained men.

Financial assistance.—Loans and Hire purchase applications amounting to Rs. 3,500 and Rs. 41,200 respectively were sanctioned under the Industrial Takavi Loans Rules during the year. Out of a sum of Rs. 1,90,000 that was brought on demand during the year, a sum of Rs. 57,000 was recovered towards principal and Rs. 20,000 towards interest leaving a heavy balance of Rs. 1,13,000 still to be recovered. The Director has given certain reasons for these large outstandings, but Government consider that sufficiently prompt and effective action has not been taken for their recovery. The further grant of such assistance to industrial concerns will have to depend largely upon the recoveries made out of the loans already sanctioned and Government trust that the Director will take active steps for the recovery of all overdue instalments of loan without further delay.

7. *Condition of large Industrial Concerns receiving State Aid.*—Of the large State-aided concerns, the Bangalore Woollen Mills and the Maharaja Mills have, as usual, done good business. Business in the Mysore Tannery has received a rude check on account of the slump in the leather trade. The Sri Krishnarajendra Mills near Mysore City have not yet started work. The Mysore Pharmaceuticals have been granted further concessions in the matter of the supply of alcohol. The Mysore Economic Union has failed to make any progress and the loan given to the concern has been ordered to be recovered forthwith. The Tirthahalli Tile Factory having proved a dismal failure so far, Government have directed that the concern should be handed back to the Directors for management after paying up the Government dues. The Aryan Hosiery Factory was under the management of the Department during the year and goods of the value of Rs. 25,000 were manufactured and sales to the extent of Rs. 22,000 effected. Government have since ordered the transfer of the Factory to the owner subject to certain conditions. The work done in the Art Litho Press cannot be considered to be very satisfactory, the only work taken on hand being the preparation of tank maps for the Public Works Department. The Director is requested to submit definite proposals as to how the work of the Press might be developed, and in the meantime it is necessary to take adequate steps for safe-guarding the loan advanced by Government.

8. *Condition of Minor Non-Factory Industries.*—The Minor Industries in existence in the State are Silk Weaving, Sandalwood Carving, Inlay Work, Bell Metal Work, Lacquerware, Wood Work, Basket Manufacture and Shoe-making. There is great scope for the improvement of methods of work in these industries and it should form one of the main functions of the department to render suitable technical and financial assistance to these artisans. The work done by the department in this respect during the year consisted in helping the Sandalwood Carvers in finding a market for their wares and furnishing them with new designs, supplying power-driven lathes for lacquerware work and studying the general conditions under which the industries are practised no w In this connection Government are of opinion that the formation of trade schools in different suitable centres are likely to prove to be of great value in developing and improving such industries. The Director is requested o study the question in detail and submit comprehensive proposals for the orders of

Government, with particular reference to the correlation of work carried on in the Art Workshop and the Chamarajendra Technical Institute with that in the Trade Schools.

9. *New Floatations.*—A few industries of magnitude were started during the year of which mention may be made of the Kaiser-i-Hind Woollen Mills with a capital of Rs. 4,00,000. Another Woollen Mill is being put up by Messrs. Manikavelu Mudaliar. Messrs. B. K. Subbaraya Chetty & Son are reported to be engaged in enlarging their wool spinning plant. A private Company is attempting the manufacture of white lead. The Mysore Paints, Limited, propose undertaking the manufacture of paints from ochres on a large scale and are now engaged in collecting the required capital. The Mysore Clay Works, Limited, has been formed with the object of manufacturing fire bricks and other similar articles and have been given prospecting licenses over areas containing kaolin hitherto reserved for the Department.

10. *Work of the Commercial Section.*—The Section continued to be under the Deputy Director Mr. K. H. Ramaiah. Trade conditions during the year were, in common with the rest of India, most unfavourable. The total trade of the State has shown a decrease of Rs. 2·5 crores in comparison with the previous year, almost the whole of the decrease being under exports. The Section issued the usual Review of Railborne trade statistics and a statement showing the general level of prices of all commodities. Beyond this no work of any importance was attempted in the Section.

The question of the location of the Commercial Museum in a more central locality so as to be of real benefit to the Commercial Community is under the consideration of Government. The Director reports that the conditions of labour during the year were satisfactory and that though wages are still high there is yet no lack of employment. An anticipated strike of employees in the Mysore Tannery during the year was averted by the tact on the part of the management. Housing of labour is still unsatisfactory and continues to be a very difficult problem. One of the principal functions of the Commercial Section is to investigate the conditions of labour in the cities as well as in the moffusil but such work has not till now been attempted. Government trust that the Director will examine the work of the Section and take all necessary steps to place it on a better working basis.

11. *General.*—Government note with satisfaction that a detailed survey of the various industrial concerns and installations scattered throughout the State has been made by the Director. This survey has brought out the fact that in almost all cases regular accounts are not maintained to show whether the working of these installations has proved of real benefit to the owners. But the general impression is that the owners of these installations are to a large extent statisfied with them though it is possible that with better financial equipment and more business acumen the installations can be made to yield better results and increased profits.

There has been a wide spread complaint that a more stringent enforcement of the Weights and Measures Regulation is called for. Government have been reluctant to enforce the provisions of the Regulation strictly hitherto for want of facilities for the adequate supply of standard weights and measures to the public which has to precede any action regarding the enforcement of the Regulation. Arrangements have now been made for the supply in sufficient quantities of Standard Seamless Measures and Standard Weights. The Mysore Metal Factory have undertaken to manufacture the measures and the equipment purchased by the Government for this purpose has been transferred to the Factory. The manufacture of standard weights has been undertaken in the Central Industrial Workshop. Government trust that a sufficient supply of weights and measures will be available and that the inconvenience that at present exists will to a large extent be removed before long.

Government observe that the Indian Factories Act has been lately amended and that many of the recommendations of the Washington Labour Conference, etc., have been incorporated in the New Act. It seems necessary that the Mysore Factories Regulation should also be similarly amended. The Director is requested to study the question and submit his recommendations for the consideration of Government.

No. I. C. 3148-207— I. & C. 91-22-3, DATED 16TH NOVEMBER 1922.

Conclusion.—Government have passed orders transferring the control of Industrial Education from the Education to the Industries and Commerce Department with effect from the beginning of the current official year. The imperative necessity for economising expenditure in all directions has compelled Government to effect considerable retrenchments in the departmental staff and the budget grants made to it. But Government trust to the energy and enthusiasm of the Officiating Director Mr. D'Souza, to ensure that the activities of the Department continue unimpaired and are, wherever possible, extended along new directions by enlisting the co-operation of private enterprise.

B. VENKOBA RAO,
Secy. to Govt., Gen. Dept.

To—The Officiating Director of Industries and Commerce in Mysore.
The Heads of Departments.
The Deputy Commissioners of Districts.

Exd.—C. R.

W D 662—GPB—16-12-22—305

ADMINISTRATION REPORT OF THE DEPARTMENT OF INDUSTRIES AND COMMERCE FOR THE YEAR 1921-22.

Administration.

I returned from my deputation to foreign countries and assumed charge of the office of the Director of Industries and Commerce on the 4th October 1921, from Mr. C. S. Balasundaram Iyer. Mr. K. H. Ramayya continued to be in charge of the commercial section throughout the year. Mr. V. Ganesa Iyer was transferred on the 4th October 1921 to the College of Engineering as a temporary measure, but reverted to the department on the 9th August 1922. Mr. N. Lakshminarasimhaiya, Superintendent, Metal Factory and Government Art Workshops, was reverted to the Public Works Department on the transfer of the Metal Factory to private enterprise and the Art Workshop was amalgamated with the Central Industrial Workshop and placed in the charge of one Superintendent. Mr. B. G. Appadorai Mudaliar and Mr. S. G. Sastry continued to be in charge of the Industrial Workshops and the Government Soap Factory. The latter Officer proceeded on leave for a month with effect from the 28th June 1922. Mr. S. V. Ramaswami, Superintendent of Industries, whose services were lent to the Mysore Premier Metal Factory reverted on the 1st June 1922 Mr. R. Ananthasubrahmanyam continued as Personal Assistant to Director. He also continued to attend to general and commercial work and was in charge of the Art Litho Press, Aryan Hosiery Factory and the Arts and Crafts Depot. Mr. G. S. Girimaji Rau, continued to be in charge of the Mysore and Hassan Districts. Mr. Kadaba was in charge of the Kolar and Tumkur Districts.

On the transfer of Mr. S. V. Ramaswami to the Mysore Premier Metal Factory, Mr. C. R. Rama Rao, Assistant Superintendent of Industries, who was in charge of the Chitaldrug District was placed in charge of the Shimoga and Kadur Districts in addition to his own duties with headquarters at Shimoga.

The officers of the Department have all worked with zeal and energy during the year. The curtailment of the grants by which the Department is now forced to spend less money directly and the reduction of Taccavi Loans have suddenly altered the main lines of work in the Department. Some of them find a little difficulty in re-adjusting themselves to the new conditions under which their work should consist more and more in investigations and assisting private enterprise in carrying out schemes without any direct aid from Government and furnishing expert advice.

Mr. C. S. Balasundaram Iyer toured for 16 days and I toured for 63 days. Owing to complaints from several owners of plants and the public that the machinery supplied by the Department to many of the installations was not working satisfactorily the position of the various concerns was examined in detail and efforts were made to render them necessary assistance wherever the causes were remediable. In addition to this work local resources and facilities for Industrial development were examined as far as practicable in the course of the tours and Industrial possibilities discussed and advice given to the people interested in industries in the moffusil. Much of the time of the officers of the Department is devoted to interviews, examinations and discussion of proposals prepared by people who are in need of departmental help to complete their schemes and obtain necessary information and advice. The number of interviews so given by the Director comes to an average of 2 to 3 per day. The results of these interviews have been useful to the people in enabling them to obtain immediate assistance from the Department in selecting proper machinery, getting reliable quotations and obtaining sites and other assistance in developing and establishing business connections. The total number of enquiries dealt with during the year was 150.

A great deal of my time was taken up during the year in framing proposals for the re-organisation of the Department. Overhauling the concerns under the Department also occupied much of my attention though the Department was first organised in the year 1912 the establishment has been continued on a temporary basis since then and as there can be no two opinions regarding the need for a Department of Industries and Commerce it was felt that the time had arrived to make it permanent and the subject has been engaging the attention of Government for the past 2 years. Unfortunately, the decision to make the Department permanent was arrived at, at a time when owing to the financial stringency the grants that could be provided for the Department had to be considerably reduced. I did my best to fall in which the views of Government and keep only the minimum establishment necessary to carry on the ordinary work of the Department and render technical advice to persons intending to start industries. The curtailment of grants has necessitated considerable reduction in the activities of the Department and with the presents

depleted staff there is not much scope for many new investigations. Fortunately some of the investigations already made by the Department and the facilities we have been able to provide to a few enterprising industrialists to start new industries together, etc., will provide sufficient work for the Department for at least a period of 2 years. Industrial development being one of the most urgent problems it is necessary to provide the Department with adequate funds for new investigations and strengthen the staff as soon as the financial situation improves to cope with the increasing volume of work.

II. The work of the Department will be reviewed under six main heads:—

i. Demonstration factories maintained by the Department and other experimental and investigation work.
ii. Industrial enterprises newly started and the schemes under investigation.
iii. Administration of Taccavi Loans and condition of the concerns financed by the Department.
iv. Improvement of Commerce.
v. Development of Posts and Telegraphs.
vi. Other miscellaneous work of the Department.

III. The financial aspects of these institutions are reviewed by Government every half year on the audited Balance sheets submitted to Government by the Comptroller to the Government of Mysore.

Demonstration Factories.

The Department had 2 Demonstration Factories, *viz.*, the Metal Factory which was transferred to private enterprise as reported last year and the Soap Factory both of which have passed the experimental stage and are carried on strictly commercial lines. The Central Industrial Workshop, Government Art Workshop and the Weaving Factory are maintained primarily with the object of ascertaining what improvements are possible in local methods of production and providing the requirements of the people in regard to machinery, supply of parts, etc., and training the people and subject to these limitations the concerns are now worked more or less on a self-supporting basis. A Department whose primary object is to demonstrate the possibilities of particular industries has to look at the question from a different standpoint from that of the ordinary manufacturer whose main object is to make the most profit. The factories are also inadequately equipped and the scale of operations not sufficiently large to produce the best results. In spite of these adverse factors it is satisfactory to note that both the Demonstration and the instructional factories have proved themselves now sound paying propositions and that it is possible to work them without loss.

I append to this report detailed reports submitted by the Superintendents of these concerns for the information of Government. The salient features of the work of these institutions during the last year are summarised below:—

The Central Industrial Workshop.—This was expanded from the original small repairs workshop of the Public Works Department. Due to this cause it could not be designed on the most efficient manner and a good deal of the buildings having been constructed and the machinery purchased during the war the capital outlay is far in excess of the present value. Experiments in the construction of machinery led to considerable loss. The question of working the concern without loss in future was pressed on the Department by the Government as a result of which large retrenchments were effected during the year and radical changes introduced into the working. After considering the proposals of the department, Government have recently approved of the suggestions made by me to reduce the capital outlay on the concern to its actual present value as the book figure is very high due to abnormal circumstances under which the Institution was started. They have also approved of the writing off of the losses that have been incurred hitherto and permitted the future working of the concern to be carried on released from such losses. The Government have also approved of my suggestions that the workshop should be utilised to a greater extent by the several departments of the State in getting their work done and instructions to this effect have been given but the response has not been sufficient. It is also proposed to supply the workshop with some additional equipment costing about Rs. 25,000. This Institution was also subjected to very severe examination by the Special Finance Committee. The usefulness of the Institution has been admitted by them and they have also accepted generally my proposals for its future working. The workshop has now a steady flow of orders from new Industrial concerns started in the State which is satisfactory evidence that the workshop has been able to inspire considerable confidence in regard to its ability to manufacture machinery. Besides the manufacture of Rice Mills and various kinds of machinery for oil and other factories, woollen mills, a large order has been placed for the manufacture of machinery for reeling silk costing nearly half a lakh of rupees. The main object of the workshop is that it should be able to supply people with the machinery most required by them at the lowest cost possible and get repairs made without difficulty as there is no large private workshop within the State. At present

attention is therefore concentrated primarily on the manufacture of machinery for Agricultural purposes and for dealing with the Agricultural products and arrangements are being made for the manufacture of Sugar Cane Mills, ploughs, etc. Other machinery is undertaken only when any specific order is placed. Though foreign firms have reduced their prices of machinery in many cases to almost pre-war level, yet it is possible to manufacture machinery locally in almost all cases with profit. The manufacture of machinery when the raw material has to be imported is not always economical but as soon as we can get iron locally manufactured a workshop of this kind will present great facilities in carrying on new lines of manufacture and utilising a good portion of the output. It also offers a good training to persons engaged in Mechanical pursuits and many of the concerns newly started have been able to get trained men without difficulty in the State owing to the existence of this Institution. The Department, has, through the Workshop, been able to supply more than a dozen men to fill important positions in various factories started during the year and some of the trained mechanics of the Department owing to the reduction of establishment have set up small workshops and other businesses of their own and in this way a large addition was made during the year to the number of persons able to undertake mechanical work for private industries. The necessity to work the concern so as not to compete with private enterprise and the restrictions imposed by Government rules in purchases and other operations of the Department and advertisement considerably hamper the working of the concern. The great difficulty is to secure a steady supply of orders and develop the business side. Notwithstanding these limitations the Central Industrial Workshop has proved itself the most valuable adjunct of the Department in rendering direct assistance to Industrial concerns in the State and carring on several investigations of immediate practical utility. The total outturn of work in the Central Industrial Workshops in the year 1921-22 was Rs. 1,15,605 representing work done by way of repairs and for the manufacture of machinery. The actual working expenses during the year were 50,864 and the gross profit was 29,076. The present success of the workshop and reputation it has achieved are due to the efforts of Mr. B. G. A. Modaliar, who has shown marked ability in organization.

Government Soap Factory.—In the last year's administration report it had been stated that certain tenders were called for, for the transfer of the Government Soap Factory and they were under the consideration of Government. Government accepted the tender of one of these applicants but were obliged to withdraw their offer as they were not satisfied with the financial stability of the applicants. On further representations made to them by the firm, Government re-considered the question and offered to transfer the concern in case adequate guarantees were given for the further development of the concern, but as the applicants failed to satisfy the conditions the offer was withdrawn. Government have again decided to invite fresh tenders and the concern will be made over to private enterprise if a Joint Stock Company with adequate capital is formed locally to take it over and develop it to its fullest extent. The protracted negotiations have greatly impeded the development of the Industry. The Soap Factory has worked very successfully during the last year and as could be seen from the detailed report submitted as an enclosure to this O. No. G. C. 50, dated 25th July 1922 that during the last year this concern has made a net profit of Rs. 23,933-7-3. The results reflect great credit on the Industrial Chemist who has been able to convert the previous years deficit into substantial profit. The returns would have been greater and the industry could have been made the source of a large income to the Department if certain proposals for expanding the factory which had been formulated by the Department more than three years ago and partially sanctioned by Government had been given effect to. The Mysore soaps have a very good reputation and the reports obtained from Experts in England have given the toilet soaps manufactured in the factory a high place among this class of articles and though our output is very limited we have been able to effect even foreign sales. The importance of the Soap Industry need not be emphasised at this stage. The Calicut Soap Works of the Madras Government is being developed to twice its original size. The experimental plant started by the Hyderabad Government has been handed over to a private enterprise, *viz.*, The Deccan Oil and Paint Works, and I understand they have quadrupled the original plant. The Bengal Chemical Works have a Soap Factory and have also developed the concern. The firm of Lever Brothers have registered a Company with a large capital in Calcutta for the manufacture of soaps in India. The present Swadeshi spirit which has given a great impetus to indigenous production combined with the high protective duty levied on imported soaps have rendered the prospects of the Industry good. The manufacture of soaps in Mysore has several advantages. The Department is therefore anxious that the results already achieved should lead to a further development of the Industry and no further time should be lost in starting a factory on a proper scale in the State. The success of the Government Soap Factory has resulted in the establishment of several small concerns of the kind and our brands have been copied both by people in Mysore and elsewhere. The methods employed by many of the local concerns are crude but assistance has been rendered by the Department in improving the process if the parties have applied to them and the machinery required has been supplied from the workshop.

Other Chemical Works done by the Department.—Owing to the want of a Laboratory, it has not been possible for the Industrial Chemist to carry on Chemical investigations on a large scale. Proposals for starting a laboratory are pending with Government. A great deal of useful work has been done during the year in the extraction of Essential Oils from new substances such as Bellary leaves, Devadari wood, Chigatamari wood and Chambalika wood, and one of these, *viz.*, Bellary leaves has yielded a new essential oil likely to command a good price and the matter is being further investigated. The industrial Chemist is also working in co-operation with the Forest Department in developing and improving the Lac Industry. He is also carrying on some investigations as to the utilisation of wood distillation products. A scheme for the manufacture of Sulphuric acid was submitted to Government in the year 1919 and was held over. It is proposed to urge the Government to give effect to the scheme. The Industrial Chemist was given an opportunity to visit certain Chemical Works in the Madras and Bombay Presidencies and his reports are before Government.

Government Weaving Factory.—The detailed report submitted along with this indicates that this institution has succeeded in consolidating a good deal of the work already started and achieved some really important improvements during the year. The work done on the Power Looms has given very satisfactory results. Several new concerns have been started for manufacturing cloths of superior counts of Cotton and Silk on power looms. Owing to the availability of cheap electric power it is possible even for small capitalists to take up this industry. As the private concerns already started with the help of the Department are likely to give good returns the matter of starting other factories has interested a number of people and their is a great likelihood of cotton and silk weaving being developed by means of such looms on a large scale by many independent concerns. Experimental work is carried on to solve the many problems that arise in using Mysore silk on these looms. The Department is now engaged in investigating the question of introducing a suitable power loom for silk manufacture and a suitable loom is being designed in Europe. Steps are being taken to provide suitable preparatory machines for such concerns which it is arranged to manufacture here as far as possible. Experimental work in the manufacture of silk saris on fly shuttle looms, the using of the fly shuttle looms with the jacquard appliances has been pursued. The machines designed primarily for the improvement of the hand loom weaving industry in the Demonstration Workshop attached to the factory have been worked under commercial conditions in the Government Weaving Factory and the results being satisfactory machines worth about Rs. 30,000 were manufactured and supplied to private concerns. Large orders are being received from local Governments and persons outside the State. Steps have been taken to patent the machines. The Department took part in the All India Weaving Exhibition held at Patna and the several machines designed and manufactured in the workshops were awarded the first price of Rs. 1,100. Following on this, we have had enquiries for these machines from all over India and there is every possibility of the work in the workshops for the manufacture of these machines being fully extended in the near future. The total value of woven goods manufactured in the factory during the year was Rs. 82,000. In selecting articles for manufacture, attention is being paid to the introduction of new varieties and designs. In Mysore weaving is next to agriculture the most important industry in which 80,000 persons are engaged and as weaving of every variety of Cotton, Silk and Wollen fabrics is undertaken and the weavers show greats kill the scope for improvement and investigation is very great.

The question as to whether the Government Weaving Factory ought to be purely a commercial concern confining its attention to the manufacture of a class of goods mostly in demand or whether it should be used as a Central Institute where experimental work of various kinds has to be conducted is engaging my attention. I have already indicated in a note submitted in connection with the programme of work for the Department in the ensuing year, the lines on which I propose doing work in the Weaving Factory. The Handloom Weaving Industry is a very important one and continued attention to its development must be bestowed. The factory, in my opinion, should be used mostly for experimental work and also as a training ground for persons who want to take up this industry. Considerable work as yet to be done and as I have explained in my note submitted to Government it is desirable to start small well equipped factories in different parts of the State and thus spread the manufacturing portion of the work in several centres of the State so that improved methods may be demonstrated and popularised throughout the State and the Government Weaving Factory should take up new lines of work such as the furnishing of new designs leaving a large margin of profit, in trying the improved appliances designed in the workshops under manufacturing conditions and finding out in what further ways the Weaving of cotton, silk and wool could be improved. The introduction of filatures on a large scale for reeling silk has created new problems for the ordinary weaver does not know how to use this silk nor is it quite suited to the class of fabrics he weaves. Experiments are being conducted in order to enable the weavers of high class silk goods to utilise silk in certain portions of the fabric and in making borders and to give the material the necessary weight.

The Weaving Factory in its Demonstration and Experimental Section has been responsible for the sale of Rs. 32,814 worth of Loom parts and accessories. The Department also assisted in the starting of two Handloom Weaving Factories in the City of Bangalore and a silk twisting Factory worked by power. Arrangements are being made to start Weaving Factories at Chickmagalur, Shimoga and other centres.

Two statements are appended to this report showing in detail the number of machines sold and their value and also the several centres in which the demonstration was conducted by the Demonstrators and the results achieved by them. They have fitted up 520 new fly shuttle looms during the year and this would bring up the total number of fly shuttle slays since the commencement to 4434. Ordinarily assuming that the majority of the looms are engaged in the manufacture of cheap cotton saris of value of Rs. 8 or Rs. 9 per piece, it may be roughly stated that due to the introduction of these fly shuttle slays there has been an increased outturn of Rs. 30 lakhs. The question has been raised as to whether it is merely sufficient to sell these fly shuttle slays or whether further work in relieving the indebtedness of the weavers should not be undertaken. Experience has shown that much improvement in the Weavers' lot cannot be achieved unless they can be provided with capital to buy their yarn and also sufficient amount for their expenses till they can sell their products to the best of their advantage. Some attempts have been made to start Co-operative Societies in important Cities like Bangalore and Mysore and though these Co-operative Societies have been of some use to the Weavers in helping them to obtain advances on their manufactured goods they have not been able to undertake the supply of yarn and organise the industry. The establishment of Weavers' Stores through the aid of the Co-operative Societies has been undertaken, I understand, in other parts of India and I believe an attempt has also been made in this direction in the State in the past but has not met with success. The Bengal Government I believe contemplate opening Government Depots for the supply of warps. In the Punjab the Registrar of Joint Stock Companies has suggested in an article published in the Bombay Co-operative Quarterly that a combination of Joint Stock Enterprise and Co-operative Institutions would probably form the ideal condition for the successful working in this direction. It is impossible to improve the industry permanently until the problem of keeping the weaver fully at work in the manufacture of articles that give him the most profit and placing him in a position to sell them most advantageously to himself is solved. The question of the financing of weavers on which the further development of the industry rests is now engaging my attention and I am making a detailed study of the conditions and shall submit detailed proposals for necessary action during the coming year.

The Department has demonstrated the possibilitiy of using fly shuttle looms for wollen weaving and work is being done in a Demonstration Factory at Hunsur. The introduction of such looms for this purpose on a large scale has not been possible owing to the difficulty to get machine-made yarn. The establishment of new Wool Spinning Mills in the State which has taken place during the year is likely to solve this difficulty. The Department is carrying on expriments for manufacturing light weight rugs and also for milling and finishing the coarse blankets turned out by the ordinary weavers. Attempts are also being made to develop the carpet weaving Industry. The desiguing of a suitable spindle for spinning hemp which is an important industry in certain parts of the State has also been taken up. Owing to want of staff not much work could be done in the improvement of dyeing. There are very skilful dyers in the State who have become experts in using both indigenous and synthetic dyes. Their methods are being carefully studied to see in what directions improvements could be undertaken. It is proposed to take advantage of the facilities afforded by the new Mills in the State to carry on experiments in dyeing with their help as the concerns having received assistance from the Department in various ways have expressed their willingness to Co-operative with the work of the Department. Both the Textile Assistant, Mr. Reddi and the foreman Muninagappa an expert weaver, possess great Mechanical ingenuity and special attention is being paid to designing new Machines.

Government Art Workshops.—With the transfer of the Government Metal Factory to private enterprise the question of the location of the Art Workshop which was carried on in conjunction with it had to be decided. Several alternative proposals were considered and finally it was decided to transf·r the Art Workshop to the Central Indnstrial Workshop where suitable accommodation has now been provided for it at a cost of Rs. 6,884. It was also put under the administrative charge of the Superientendent of Central Industrial Workshop. In the Superintendent's report enclosed herewith, the limitions unvder which the Institution has to work are clearly set forth. It is intended primarily as an educative Institution affording training and means of support for about 120 boys and unskilled men as it is not possible to induce the children of artizans to pass through the courses of Industrial Schools. It has succeeded in training a large number of persons belonging to classes not hitherto used to such occupations to do high class carving and inlaying work. The manufacture of lacquerware which was confined to Channapatna has been introduced into Bangalore. Several varieties of wood have been tested

and the opportunities of converting many of them into articles of high value demonstrated. New designs have been introduced and also improvements in practice. The Institute has therefore so far accomplished very useful results. The Institute suffers greatly owing to want of labour saving appliances and a seasoning kiln. Detailed proposals for the supply of additional equipment has been submitted to Government and their orders are awaited. As the commercial possibilities of the industries carried on in the Workshop are great and the limitations under which the work is carried on seriously hamper the development of the Industry on a large commericial scale and providing a good market for the articles turned out, steps have been taken to interest a wealthy capitalist to start a concern to extend the production of such articles to the maximum limit. Orders for machinery have been placed and manufacturing operations are likely to be started during the year. As soon as private enterprise is able to exploit the possibilities of the Industries on a commercial scale attention will be concentrated in the workshop in turning out articles that demand high artistic skill which are not affected by competition of machine-made articles and demonstrating new uses for Mysore woods. It may be interesting to note that the manufacture of pirns and bobbins for certain local mills has been undertaken from different varieties of suitable local woods in this Workshop and a large order has been received

With the transfer of the control of the Technical Education to the Department of Industries it is my intention to correlate the work done in the several factories under the control of the Department and the training afforded in the schools so that it might be possible for a student who undergoes training in any of the industrial schools to complete his education by working in one of the factories under commercial conditions and become a proficient workman by the time he leaves the Workshop.

The Arts and Crafts Depot.—This concern continued to work on the same lines as before. Its monthly sales came to nearly Rs. 4,000 and as the articles sold are generally articles requiring high artistic skill the Department has been supplying a steady source of employment to a large number of skilled artisans in the State. The concern has now proved itself entirely self-supporting. The Department is able at present to meet only the demands of visitors and local residents. If a larger market can be opened by having branches for the Depot in Bombay and other large cities of India the sales can be increased several times and a larger number of artisans kept employed. Proposals for opening a branch in Bombay have been submitted to Government. The Depot has practically saved the art of the local artizans from extinction. Certain radical alterations in methods of work are also necessary. The Depot should have a suitable agency to distribute the work among the various workers throughout the State, to supervise and instruct the workmen and greater freedom of action in making advances and purchases. These questions as also the question of co-ordinating the work of the Depot with that of the Art Workshop, Chamarajendra Technical Institute and the Industrial Schools at Channapatna and Sagar and using all these Institute to raise the standard of work and create a better market are now engaging my attention.

District Industrial Workshops.—Government had in their Order No. 3005-55—I. & C. 144-16-2, dated 17th September 1917, approved of the starting of District Workshops in the several districts of the State. Under this scheme a Workshop was started in Shimoga in 1919 and has continued to do useful work. This Institution during the year executed 489 orders and the value of the work turned out amounted to Rs. 6,287. The expenses incurred in maintenance, etc., amounted to Rs. 4,700. It is therefore self-supporting. As there is some industrial activity in the Shimoga District and the people need much help in getting agricultural implements, etc., the workshop meets a great desideratum. It is proposed to work it in conjunction with the Industrial School so that its pupils may be given a through practical training. Two other District Workshops were also under erection during the year and of these the one at Tumkur was completed and commenced work late in the year. The Institution being new has not been able to do very much work. I have recently, in consultation with the President, District Board, suggested that all the works of the Public Works Department, Water-Supply and the Sanitary Department of the District should be entrusted to this Workshop and I am also arranging to have this Institution run as an adjunct of the Central Industrial Workshop so that it may be kept well supplied with work. The Kolar District Workshop could not be completed owing to want of budget allotment, but, I propose, however, making a beginning this year. The Kadur District Board have agreed to give a grant of Rs. 2,500 for buying an engine to start a District Workshop in connection with the Industrial School, the other machinery being supplied by the Department. Efforts are being made to open similar workshops in other District Headquarters. As it is not possible under present conditions to get suitable private agency to start such workshops in the districts and the introduction of machinery for small industries without proper facilities for repair retard their success it has become imperative for the Department to start these workshops in order to supply this want. As the District Industrial Schools should also have a workshop attached to them it is easy to utilise the facilities and arrange to meet the requirements of the local people without committing

our selves to any great expenditure. I hope to be able within the course of the year to have a workshop in almost every District Headquarters so that petty repairs and making of parts can be attended to as far as possible locally, The workshops will all be placed under proper supervision and will form a good nucleus for training workmen throughout the State. I have also given facilities for starting workshops to private individuals in Mysore, Kolar and other places.

Sugar-cane Mills.—Mr. C. S. Balasundaram Iyer, my predecessor in office, brought to the notice of Government in the last year's report the difficulties that have been encountered in the working of the sugar-cane installations. The work was resumed during the year though not by the Department directly. Mr. Guruva Reddi, who has an Oil Engine and a Sugar-Cane Crusher at Hudi and is able to command a large supply of cane undertook to purchase a megass furnace erected by the Department if its usefulness was demonstrated to him. The Department worked it for two seasons. This year he himself undertook the working of the installation, the Department only lending a trained mechanic for the purpose. His charge for making jaggory from the sugar-cane supplied was about 5 annas a maund and this amount seems to have been sufficient to recoup his expenses. The total quantity manufactured during the year in this installation was 5,000 maunds of jaggory working for 60 or 70 days. The plant is however set up in a place where there is little supply of cane which has to be brought from a distance of nearly five miles. The crusher is worn out and extraction is poor. I am trying to induce him to transfer the plant to a more suitable locality. The results of this installation are very encouraging and there can be no doubt that if a regular supply of cane can be arranged for, the installation can be worked very successfully with profit. It was stated in the last year's administration report that a portable sugar crushing plant was under manufacture. This was completed and arrangements made with Mr. Mc. Issac who has a plot of about 4 or 5 acres of cane at Tavarakere to carry on the experiment of using the plant with a Fordson Tractor at his own cost. It is still premature to state how far the plant could commercially be a success as it could be worked only for a short period but the fact that he has offered to buy it shows that he is himself satisfied with the results. It is proposed to continue the investigation in the coming year.

Government sanctioned the starting of the work of sugar-cane crushing at Channarayapatna late in the year and the work has just commenced. The quality of cane in this area is unfortunately very inferior and the milling results have not been statisfactory. The plant set up by the Department is also old and not efficient. Even as it is there has been no difficulty in getting cane and it has been possible to make jaggory at a cost not much in excess of what is paid by the local people. The work in the installation is still proceeding and I shall submit a detailed report at the close of the season. Steps will be taken to introduce necessary improvements in the plant so that we may be able to show better results in the next season.

Sir Alfred Chatterton had also started a steam heating plant at Agaram for manufacturing jaggory. This was only partially tried and has been lying idle for the past four years. As it has certain features which would make it eminently suitable for certain areas if it can be worked with profit. I am now arranging to have it tested by a private gentleman.

Arrangements are also being made to manufacture bullock driven mills in the Workshop. It will thus be seen that the Department has again undertaken the necessary experiments to provide the raiyat with suitable machinery for dealing with cane and arrangements are being made to carry on further experiments with the different types of plants through private agency which is able to arrange for the supply of cane more satisfactorily. In this connection I may be permitted to state that the impression that the Sugar Committee seems to have formed about these experiments are not correct due to the fact that they never attempted to get any information from the Department and their suggestions in regard to Mysore have not much practical weight.

Industries under Investigation.

IV. The Industrial Geologist attached to the Department had submitted certain proposals to conduct the prospecting work regarding the availability of corundum. The work however could not be undertaken as no additional allotment could be made available during the year. Government have just issued orders regarding the grant of certain blocks containing Kaolin for the starting of porcelain works to Messrs. V. Manickavelu Mudaliar Sons to enable them to start a Company for the purpose. A preliminary scheme has been prepared by the Experts employed by the Department and this has been supplied to Messrs. Manickavelu Mudaliar Sons and further enquiries are being made on their behalf regarding the supply of correct plant the construction of kilns, purchase of machinery, etc. No further investigation in mineral possibilities of the State could be undertaken as the services of the Industrial Geologist were terminated on the expiry of his contract with Government. The Department has been aproached with a request for assistance to start the manufacture of Sodium Bichromate and the matter is under investigation. Government have also thrown open the Voblapur Limestone Deposits to be granted for starting Industries in lime products. A scheme is under preparation.

Alkali Works.—In the last year's report mention has been made of the work that had been done at Chamrajnagar by Mr. Aminudin Ali to whom some financial assistance was rendered by Government. As reported therein Mr. Aminudin Ali had come to the end of his resources and Government also decided not to render further assistance in the matter with the results that no further work could be undertaken by him and this venture has led to no result excepting that a certain quantity of Alkali earth collected by him has been left on our hands. The Industrial Chemist is hopeful of finding a sale for the finished product and during his deputation to Bombay had interviewed the Eastern Chemical Syndicate and has also submitted certain samples to Port Blair where there was an enquiry for the same. The Industrial Chemist has also suggested that the natural deposits in the State of Alkaline earth could be used in conjunction with some of the products of the wood Distillation plant at Bhadravati. The question is under the consideration of the Board of Scientific Research and Advice. Efforts will be made to interest some private capitalists in the development of the Industry for the use of the alkaline earths.

Sugar.—Mention has been made in the last year's report that certain investigations were conducted and certain applications that were received for starting a Sugar Factory were under the consideration of Government. As it is not possible to provide a sufficiently large area for a factory under any of the existing work of irrigation, none of the applications could be complied with. The report of the Sugar Committee indicates that the possibilities of starting a sugar concern in Mysore are not very hopeful. The Department is however investigating at the instance of a private applicant whether it may not be possible to provide a sufficient land for a small factory owning about 3,000 acres at Sulekere.

I have already pointed out in an earlier part of the report that the more imperative question in Mysore is at present how to provide the most economical and efficient machinery for dealing with areas of cane ranging from 50 to 150 acres, of which large blocks are available in the State than the starting of large factories which are likely to cause much economic unsettlement as all the available lands in Mysore are generally under private holding. If this problem is solved it would be easier to arrange to take the jaggory to a Central Factory for refining and develop other industries. As soon as certain large irrigation works that are in course of construction are completed the question of reserving a sufficiently large block under them may be considered. The Department also proposes to investigate with the Co-operation of the Public Works Department the posibility of providing lands where water can be provided by means of pumping on a large scale for which there appear to be suitable sites in many parts of the State.

Forest Industries.—Owing to the very high cost of bringing bamboos to a Central Factory and the fall in the price of Chemical pulp, the question of making bamboo pulp has been deferred. Meanwhile facilities have been given to test other suitable materials for making pulp. A detailed scheme has been prepared for the manufacture of straw board and efforts are being made to enlist private enterprise. Arrangements have been made to start a large furniture factory and experiments are being conducted to find uses for new and untried woods. Investigations will be made in regard to the utilisation of the more important minor forest products for industrial purposes and information collected as to available supplies.

New Industrial Schemes for which Plans are being Prepared.

The Department has obtained detailed specifications and quotations for the following industries:—

i. Manufacture of Glue
ii. Manufacture of Straw Board
iii. Silk Weaving
iv. Preparatory machines for above
v. Manufacture of matches
vi. Wool Spinning
vii. Manufacture of spun silk from silk waste.
viii. Silk reeling with the aid of a Filature
ix. Manufacture of cement bricks
x. Establishment of bone manure works and Coffee Curing.

The Department is in touch with certain industrialists who have expressed an interest in these industries and have approached the Department to collect all the necessary information. It is proposed in the ensuing year to concentrate attention on the starting of a few of these industries with the aid of private enterprise.

Development of Minor Industries.—Next to Weaving the other important minor industries in the State are silk reeling, Sandalwood and other bell metal work carving, inlay work, wood equerware, wood work, basket work and shoe making. The great rise in the

price of silk has given a stimulus to the growth of mulberry and the rearing of silk worms. Indigenous methods of reeling are very primitive and though the cost of reeling silk by these methods is very low compared to reeling by improved filatures, yet due to want of uniformity in thickness of silk so reeled and its being too much broken and knotted it has not been possible to create a foreign market for the locally reeled silk. Owing to there being sufficient demand for all the silk produced locally no need for finding other markets has been experienced but we have almost reached the limit to which silk production can be carried on if we are to rely solely on the South Indian markets. The range of articles that may be produced with silk obtained under such conditions is rather limited. Efforts are being made to start an up-to-date filature on a large scale with private enterprise and the machinery is under construction. The demand for the silk produced by the local weavers will always be however so great that the industry is not likely to be materially affected by the starting of a filature while the development of new markets is likely to stimulate the increase of cocoons. The machines introduced by the Department for doubling twisting have greatly improved the industry. Steps are being taken to organise silk and twisting itself as an independent operation in separate concerns, devoted to it thereby, promoting greater division of labour and increasing production.

The sandalwood carvers in the State are now organised in two centres, *viz.*, Sorab and Sagar and their work is supervised with the aid of the Co-operative Societies. The Department has arranged to supply them with raw materials and find a market for the articles produced. As a result of this help rendered by the Department there is now a steady market which provided sufficient employment for all the people engaged in the industry and if a larger market can be provided by opening Sales Depot in Bombay and Colombo there should be no difficulty in keeping a large number of men than are engaged at present in the industry. The Department has trained other classes of men than Gudigars for the work. The improvements undertaken are the furnishing of new designs, using sandalwood with other oramental woods and producing new artistics effects. Similar attempts are being made to improve inlay work. Arrangements have been made to use power-driven lathes on a large scale for lacquerware work. The lacquering of flat surfaces has been taken up. Rattan work is being greatly developed and local canes are being used on a large scale. Arrangements have been made to instruct in rattan work, new kumbi settlers in the Ghats and the Forest regions of the Sagar Taluk. Extensive experiments in improved methods are first tried in the Arts Workshop and the Chamarajendra Technical Institute and when satisfactory results are achieved, arrangements are made to popularise them by securing orders and getting them executed by local workmen. The brass industry is also being improved by affording special facilities to multiply moulds and giving instruction in the production of hollow figures. A detailed survey is proposed to be made of these minor industries and the question of improving each taken up as a whole. Government having directed the closing of the Home Industries Institute, the Department has not been able to carry on much work in the improvement of Home Industries but efforts have been made to prevent the work already done from disappearing by affording facilities to the people to obtain machinery on reasonable terms and inducing the instructors themselves to set up independent business. It is proposed to start a class for training in Home Industries in connection with the scheme of Industrial Education.

State Aided Concerns.—A separate report is submitted to Government through the Comptroller to the Government of Mysore showing the nature of assistance granted by Government and how far these have been utilised as per Government Order No. 4909-21—G. F. 196-18-1, dated 3rd April 1918. I shall however, review in brief the working of these several concerns over which I exercise some control as a Government Director or which have been taken over by the Department for management. *The Bangalore Silk, Woollen and Cotton Mills, Ltd*, This concern has two Government Directors on the Board. The bulk of the shares are held by the people outside the State. This concern is one of the most flourishing mills in Southern India paying large dividends and it is being considerably enlarged.

The Mysore Cotton and Silk Manufacturing Co.—This has also a Government Director on the Board though he is not an officer of the Department. The Mill owing to efficient management is now paying very good returns and it is also being enlarged. The Managing Agents have started another mill known as the Minerva Mills for which Government have granted a site.

The Mysore Tannery.—This concern due unfortunately to the slump in the leather trade has not been able to maintain its previous record of declaring good dividends. The working of the concern has not, however, resulted in any loss and it is understood that the management is very hopeful of the situation being improved and they have also arranged to obtain the services of an expert from Europe to assist them in remedying matters. Government have arranged with the Government of India for the supply of duty free salt to this concern, which is likely to improve its financial position.

The Sri Krishnarajendra Mills, Ltd.—The Director of Industries is an *Ex-Officio* Director in this concern to represent Palace interests. The erection of machinery and buildings is being rapidly completed and manufacturing operations are expected to commence next month.

The Mysore Pharmaceuticals, Ltd.—No further improvement has been made in the working of the concern than that mentioned in the last year's Administration Report. Government have under consideration certain representations of the firm regarding the difficulties it was labouring under, due to its inability to import alcohol for its manufacturing purposes from places outside the State the price being much lower than that charged by the Government Distillery for duty free Alcohol.

The Mysore Economic Union.—The negotiations mentioned in the last year's report which the company was stated to have entered into with the Mysore Industrial Bank, Ltd., were completed and certain orders for filter presses, tanks, etc., were placed with the Central Industrial Workshops by the Managing Agents. The concern, however, has not started work and a final notice calling upon them to intimate as to when they would be able to start work has been issued. It is doubtful whether with the present financial crisis it would be possible for this concern to find necessary fund to start work and the question as to the measures to be adopted to recover the Government Loan is under the consideration of the Department.

The Thirthahalli Tile Factory.—Government had approved of my predecessor's suggestion to continue the management of the concern for a period of one year until a good class of tiles could be manufacared. With a view, however, to eventually transfer the management of the concern to the original owners, I called for two meetings of the Board of Directors and shareholders and suggested that steps should be taken by them to take an active interest in the working of the concern and relieve the Government of the responsibility to continue the management indefinitely. Some of the Directors were agreeable to take over the concern under their management and I have called on them to take mesures to discharge the Government Loan and take over the management at a very early date. A careful enquiry into the cost of manufacture was undertaken and as a result of the close scrutiny exercised, reduction in the cost of manufacture by nearly 20 per cent on the original figures was effected. During the year, 175,000 were manufactured and Rs. 8,700 worth of tiles were sold. Due to defect in the construction of the chimney and heavy rainfall a portion of the chimney has collapsed and work had to be temporarily suspended. It cannot be denied that the whole concern has been carried on in a manner involving much waste of money both in the original construction and subsequent management.

The Aryan Hosiery Factory.—The factory continued to be under the management of the Department. During the year, Rs. 25,180 worth of goods were manufactured. The sales during the year was Rs. 21,826. The sales are conducted through one of the local merchants and confined to the class of goods which are mostly in demand locally. Arrangements were made during the year to put bleached goods on the market. The period of three years for which Government originally undertook to manage the concern having expired they have under their consideration the conditions under which the concern may be handed over to Mr. Karve and their final orders are awaited. This is also a concern which if it could have been developed with sufficient capital could have been placed in a very satisfactory position, but Government aid being limited it has not been able to show much improvement.

Art Litho Press.—Mr. M. Shama Rao, Proprietor of this Institution was engaged during the year in completing the tank map work given to him by the Public Works Department. Till the close of the financial year he had executed about Rs. 20,000 worth of work and he hopes to complete the Government order on hand by the end of the calendar year. The question as to what steps should be taken to develop the business after the present work he has on hand is executed is engaging the att ention of the Department.

The last three concerns have not justified the Government help that they have received. The machinery and equipment are inadequate. They have no resources for working capital. The management also leaves much to be desired. It is very unfortunate that when Government help should have enabled the promoters to develop the industry successfully the concerns have been thrown into the hands of Government.

Assistance to private enterprise and Administration of Taccavi Loans.

VII. Government having restricted the grant of Taccavi Loans to purely urgent cases the number of loans that were sanctioned during the year were very few.

The enclosed Statement No. 1 furnishes full details regarding the transactions under this head. At the beginning of the year, 2 hire-purchase and 2 loan applications of a total value of Rs. 48,700 were pending disposal. Loans and hire-purchase applications amounting to Rs. 3,500 and Rs. 41,200 respectively were sanctioned during the year. In addition to the arrears outstanding at the commencement of the year amounting to Rs. 89,648-2-6,

a sum of Rs. 1,00,389-10-7 was brought on demand and a sum of Rs. 56,915-5-9 was recovered towards principal and Rs 20,039-9-8 towards interest. The balance outstanding at the close of the year was Rs. 1,13,032-13-8. The reasons for such heavy arrears are-(i) more than ¾ of the amount represents loans given to some large industrial concerns referred to in the previous paragraph not coming strictly within the purview of the scheme of Taccavi Loans for industries, which for various reasons have failed to work with profit, (ii) owing to the high price of crude oil and other causes the cost of working the machinery has increased greatly and some concession had to be shown in many cases so that the concern may not be altogether crippled and forced to stop work in order to meet the Government demand, (iii) some of the loans are more of the character of subsidies for experiments, such as, match making, glass bangle making, manufacture of Sodium carbonate from earthsalt, etc. These do not seem to be recoverable.

The experience of the Department is that while loans granted for the development of small industries where the amount does not exceed Rs. 20,000 as a rule lead to the development of the Industry if the concern is properly selected and efforts are made to return it as soon as the concern yields a profit in the case of larger concerns, the same incentive to produce the maximum of return with a minimum cost and make the concern pay seems wanting. The Department has of late been discouraging applications for large loans. The amount drawn from the Treasury ever since the introduction of the Taccavi Loans in September 1913 comes up to Rs. 7,86, 274-8-0 and the amount recovered towards principal till now is Rs. 3,40, 712-0-11 and Rs. 61,520-11-2 towards interest. Active steps are being adopted for the recovery of outstandings with due regard to the circumstances of each case.

In the last year's Administration Report mention has been made by my predecessor in office that a detailed survey of the Industrial installations at work in the State was proposed to be conducted by the officers of the Department. This enquiry was undertaken and a detailed report on the working of each of these installations giving the reason for success or failure in each case has been submitted to Government. Much of the information collected is of a confidential character and cannot be given in this report. But it will staisfy our present purpose if we state generally the results of such enquiry. In the case of almost all private installations regular accounts are seldom maintained and even when they are maintained they are not freely produced. It is not therefore easy to ascertain the correct amount of profit or loss in any case but where the concern has been worked continuously and the owner has been able to run it successfully for a sufficiently long period it may be presumed that the concern has been yielding a sufficient profit. The rise in the price of machinery had rendered it possible for sometime to sell most of the plants for more than the original price even after considerable use. Though specific offers were made very few persons availed themselves of this opportunity. They have preferred to keep the plant thus showing that they do not regard the concern as a burden to be got rid of. On the whole our investigation has confirmed the conclusion drawn in the last year's report that the failures alleged are greatly exaggerated and that where the concern is not working satisfactorily, it is not due to defects of machinery but to causes over which the department has no control.

Purposes for which loans have been advanced.

When the system of granting financial assistance to Industries was first introduced into the State, the loans were originally given mostly for the introduction of machinery, for the promotion of agriculture and for dealing with agricultural products such as pumping installations, rice mills, power driven sugar-cane crushing installations, oil mills and etc. A few loans were given to new Industries such as tile factories, printing presses, etc.

Some special loans were given to Joint Stock Companies and other Companies under peculiar conditions such as the Mysore Economic Union, Tirthahalli Tile Factory, the Mysore Pharmaceuticals, Limited, the Art Litho Press and the Aryan-Hosiery Factory. These undertakings were started in the first instance without the agency of the Department and it became necessary to help them as they found it difficult to proceed beyond a certain stage, but even with such help, owing to lack of resources, defects of management, etc., as already explained, the results in most cases have been disappointing.

Pumping Installations.

In regard to enterprises for which the Taccavi Loans are really intended, *i.e.*, ordinary industrial concerns requiring a moderate capital outlay it will be convenient to deal with each class separately. In all there are about 29 pumping installations in the State and of these about 14 are working very satisfactorily. The success of these concerns is due to the fact that the installations are untilised in irrigating lands which are already in a high state of cultivation and the crops grown thereon are of commercial value. It may be stated also that on the whole the pumping plants in the Chitaldrug, Kolar and Tumkur Districts have proved very satisfactory chiefly due to the fact that they are used for supplying water to garden corps. When these installations were first started crude oil was cheap and the engines supplied, worked mostly by crude oil.

In the majority of pumping installations the motive power is supplied mainly by crude oil engines manufactured by Hornsby Ackroyd and the pumps used are Rees Roturbo pumps of 3"diameter or of larger sizes according to the quantity of water that has to be pumped. In a few instances Suction Gas Plants have also been erected and engines of other makes such as Avance have also been tried. Owing to the high cost of crude oil, there is little chance of profit unless the water supply is sufficient to irrigate a fairly large area and the crops raised are of high commercial value. Suction Gas Engines are cheaper in operation but the initial cost is high and no suitable type of small units has been evolved.

These pumping installations work efficiently when the area irrigated is large enough and the proprietor has sufficient capital. But they are not suited to small holdings where the area to be irrigated is less than 10 areas. The designing of a suitable type of engine and pump to meet the requirements of the ordinary agriculurist which could be had at a fairly low price and the cost of working it would not exceed the amount ordinarily spent in using bullock power is engaging the attention of the Department. Recently in consultation with Sir Alfred Chatterton arrangements have been made to obtain a 2 Horse Power Suction Gas Plant coupled directly to a pump and if this serves the needs of the raiyats it will help us to solve the problem of providing an efficient method of irrigation by mechanical power within the reach of the proprietors of small holdings.

In nearly every case intending owners of installation plants were supplied in advance with information as to the area required to be irrigated, in order to work the plant probable cost of irrigation, but in many cases, unfortunately, the departmental officers did not themselves investigate the cases before putting up the plant as to how far these conditions could be satisfied. For the past two years therefore the Department has followed a different procedure in regard to pumping installations. Applicants have been clearly informed in each case of the conditions needed to make the concern a success and loans have been recommended only in cases in which there was an assurance that the concern could be worked with profit Except in the case of persons who are able to keep regular accounts and are in a position to determine the exact limit of expenditure which each class of crop, can bear on account of irrigation and work the installation on commercial methods, the department does not consider it desirable to encourage other to launch out such enterprises. The wells ordinarily sunk by the raiyats have not sufficient depth to yield a good supply of water. The Department has obtained an Aster Pumping Set which is very useful in the excavation of irrigation wells and this pumping set is given on hire to persons who desire to sink large wells and are required to go sufficiently low down. Such help was rendered in the case of 6 wells last year For smaller wells the Department has a Pulsometer Pump. The starting of new pumping installations had to be postponed owing to the adverse conditions referred to above. But it is proposed to resume the work of selecting suitable sites and carrying further investigations. Soil conditions also present several difficulties in building up wells. These problems are also being studied.

Rice Mills.—The next class of concerns for the development of which the department has rendered much assistance are Rice Mills.

There are in all 27 Rice Mill in the State which have derived direct financial assistannce from Government and 19, others have been started without such assistance. Prior to 1913, before the department undertook the development of rice mills, the number of these concerns in the State was only 3. These installations have been most successful in the City of Mysore where conditions are most favourable for their success as Mysore is both the largest centre for paddy in the State and has a good market for rice. The mills are thus able to get sufficient paddy for milling on hire and do not therefore require much additional capital for buying paddy. The rice mills in Bangalore are fewer in number but some of them are equally successful. The recent increase in the electric rates has prejudicially affected the smaller concerns, but even with these high rates there is good margin for profit. Shimoga is another centre where there has been a remarkable development of rice mills recently. Similar concerns, have yielded satisfactory results in the Hassan and Chilaldrug Distrcts where there is a good supply of paddy. Where the concerns have been started in some main centre of the State through which large stock of paddy are imported and where there is sufficient working captial to buy paddy, if required, they have proved a success. The business factor has been the main determining element in the success of these concerns.

Rice Mills in the State are mostly individual or proprietory concerns. Only one has been started by a Joint Stock Company at Hole-Narsipur but work has not been started owing to indifference on the part of the Directors and Shareholders. In the case of several partnership, concerns also quarrels among the partners have seriously affected the success of many of them and the other two concerns were helped in other ways. An enterprising merchant has placed an order for a 8 cwt. Rice Mill in the Workshop. The machinary is complete and both in point of cost and efficiency this rice mill compares

favourably with imported rice mills. Four other schemes are ready to be put into execution but as the parties want some financial assistance from Government there has been a little delay in giving effect to these proposals. Of the rice mills started with the help of the Department only in 6 cases the concerns have not been able to work continuously as they have not sufficient working capital. The localities are also not suitable. Efforts are being made to transfer the plants to persons having more resources and places where local conditions are much favourable.

Through the agency of the rice mills started by the department about 15,000 tons of 350,000 bags of rice are milled in the State every year and this represents a net profit of nearly 1 lakh of rupees to those engaged in the industry.

Flour Mills.—Somewhat allied to the rice mills are the flour mills started with the aid of the department. The flour mills introduced are of two types (1) installation of large units (2) small grinding mills used mostly for the grinding of wheat, ragi, Cholam, to supply the people of the neighbourhood. The former have been started in large cities and the latter in various mofussil centres and also in some parts of large towns as well. Before this work was undertaken there were only 2 large flour mills in the City of Bangalore. Now 4 additional flour mills have been started at Bangalore. Besides these there are 4 small flour mills at Mysore, 1 at Davangere 1 at Chitaldrug 1 at Tumkur 1 at Rampur in the Shimoga District. These are all working satisfactorily.

The flour mill at Kolar has been transferred to Bowringpet owing to want of sufficient work. It is also not thriving there and the owner proposes to transfer it to Bangalore. Experience has shown that under present conditions unless the mills have sufficient capital to be able to buy the grain and sell the flour and do not depend merely upon milling charges, they are not likely to be able to work at a profit.

Oil Machinery.

The Department has achieved the most satisfactory results in the development of the oil milling industry in the State. The usefulness of the Anderson Oil Expeller which had failed to yield good results in many parts of India was first successfully demonstrated by the Department. There are 3 Anderson Oil Expellers at work 2 in the City of Bangalore and one in the town of Davangere and these on an average produce about 600 tons of oil per annum and the concerns are managed successfully. It is likely that another plant of this type will begin operation in the course of the year. The Department has also assisted in the introduction of six smaller installations consisting of rotary oil mills. Of these two in the City of Bangalore, 2 in the City of Mysore and 1 in the town of Tumkur are working satisfactorily. The concern at Chickmagalur which is part of a plant consisting of a Coffee Huller, a rice and a flour mill is not working satisfactorily due to financial causes. The Department is now investigating the question of the introduction of suitable hydraulic presses of small sizes for oil pressing and the adoption of improved processes.

Decorticators and Gins.—Among other small machines introduced by the Department in dealing with agricultural products may be mentioned ground-nut decorticators of which two are in use and soapnut disintegrators 6 in number and the introduction of small gins in the interior parts of the Chitaldrug and Mysore Districts ; all these concerns are working satisfactorily.

The Department has assisted in the establishment of a large Ginning Factory at Chitaldrug which owing to the failure of the cotton crop in the Chitaldrug District during the present year has been somewhat handicapped.

Tile Factories.—The assistance given by the Department for the development of the Tile Industry in the State has also brought upon it a certain amount of unfavourable criticism. This is due chiefly to the experience of the Tirthahalli Tile Factory the failure of which is due to causes for which the Department is not directly responsible. Before the Department undertook the encouragement of such factories which are needed to supply one of the primary wants of the people, there was one large factory in the City of Bangalore. The City Brick and Tile Works a small factory run as an adjunct to the Technical Institute in Mysore, two small tile factories at Sringeri and Sagar and a few presses in some parts of the State. The Department was also able to design a rectangular circular down draught kiln costing about Rs. 7,000 to Rs. 8,000 and four such kilns have been erected by the Department at Mysore, Tumkur, Kolar and Tirthahalli. The first three concerns are working satisfactorily and the introduction of similar kilns in other parts of the State is likely to give a great impetus to the Industry. Arrangements are being made to start another large tile factory at Tumkur where the clay seems to be particularly suitable. The Department has also rendered financial assistance to the two factories at Sagar. Local dissensions and other causes have stood in the way of their continuous working and efforts are being made to effect an amalgamation.

Having regard to the good margin of profit such concerns yield due to the high price of tiles as compared with the manufacturing cost a large number of such concerns have spring up in various parts of the State. Owing to the ignorance of the promotors of such concerns as to the requirements of an efficient kiln and the facts that the construction and

working have been left to some workmen picked up from a Tile Factory, on the West Coast that the clay was not properly tested, that the adequacy of its supply was not sufficiently investigated and that most of these undertakings have not sufficient capital, many of them have not been successful. The problem of organising the industry properly and of developing it further so that a great part of all local requirements may be satisfied by the factories within the State has therefore been taken up by the Department.

Printing Press and other Miscellaneous Works.—The Department has also promoted the development of printing in the State and two presses in the mofussil at Tumkur and Shimoga owe their existence to the help of the Department. Assistance has also been rendered to 4 presses at Bangalore, all of which are found to be working satisfactorily.

Among other industries helped by the Department are the Starting of a Furniture Factory at Bangalore and Davangere and of Toy Works at Mysore, and development of Photography. These concerns have just begun to overcome the initial difficulties.

A Button Factory started by the Department was handed over to private enterprise but owing to the unwillingness of the Expert to render to the concern the utmost help he could, the venture did not prove a success. The machinery imported for the Button Factory is now used in making toys and lacquerware articles and as it is difficult to compete with imported buttons attention has been concentrated on developing the lines of work which are proving remunerative.

Loans of the nature of Subsidies for Experiment.—Another class of loans given by the Department is really of the nature of subsidies to local people for carrying on certain experiments in industries. Among these may be classed the loan of Rs. 2,500 to Mr. Channaveerappa to develop the Glass Bangle Industry, Rs. 4,400 to Mr. Krishnamurthy Rao for manufacturing matches and candles and Rs. 5,000 to Mr. Aminudin Ali for the manufacture of Sodium Carbonate out of Alkaline Earth. In all these cases, the Department from the beginning entertained great doubts as to the possibilities of success but as it was considered that such experiments deserved encouragement even though they might not succeed, the department afforded them every facility. Though there is a good likelihood of these industries being developed, if taken up by people with adequate financial resources and technical knowledge the results so far achieved have not proved satisfactory.

The facts given above clearly show that the system of Taccavi Loans has been of great benefit in the development of small industries in the State. During the last ten years that the Department has been in existence, the number of concerns using motive power has increased by 177 and the total H. P. in these installations is 5,700. The concerns that use electric power only 80.

Small Industries concerning about 6,000 H. P. been developed through the Taccavi System.

Thus the people of the State have been able to use nearly 6,000 H. P. generated by Oil Engines, Steam Engines and Suction Gas Engines. Industrial concerns of a small size where the capital does not exceed Rs. 50,000 are most successful when they belong to individuals and where the capital is larger, partnerships and joint stock concerns are more suitable but success entirely depends upon the concern being able to command the services of a capable Manager and the harmony and the co-operation existing among the partners and shareholders. Industrial concerns run by co-operative Societies have not been quite successful, as the methods adopted by such societies even under efficient management are not suited to the management of Industrial undertakings. Conditions in recent years have also been unfavourable to normal development. Prices have been abnormal and the element of speculation and uncertainty has been a disturbing factor everywhere. Inspite of all these, the people have awakened to the advantage of Industrial development and the successes that have been achieved have had a most stimulating influence and entirely counteracted the effects of failure. With the experience which the Department has gained and the more favourable atmosphere for the industrial development now prevailing, the system of Taccavi loans is likely to serve as a most useful factor in stimulating the development of the resources of the people. I have on several occasions urged on the Government the need to continue the system of Taccavi Loans and provide adequate funds and assured Government that we have now reached a stage in which it is possible to render help absolutely without any risk of loss. In order to meet the need of small industries at least a sum of Rs. 1,00,000 is necessary in addition to the amount now allotted annually.

VII The Installations that were taken up for execution in the year were,...and out of which...have been completed and handed over. Apart from the erection of the machinery purchased by the Department and fitted up at the request of the owners, the Department has had several requests for the loan of the services of their officers and the trained men for assisting private industrial concerns. The Mysore Premier Metal Factory had till recently one of our officers as Superintendent on loan and the Pioneer Industrials have been helped to obtain necessary foreman etc., and another Mechanic's services have been lent to the

Erection of Machinery and Assistance of private Enterprise.

Proprietor of an Oil Mill at Davangere. The Department has also rendered the necessary assistance to the Minerva Mills and the New Pioneer Industrials in securing for them sites and also in obtaining access to them.

Prospects of new Industries,

IX. Owing to the abnormal financial stringency that prevailed no new big floatations of big concerns were noticeable during the year. But several of the institutions which were started during the previous year commenced work and among these mention might be made of the Kaiser-i-hind Woollen Mill which was started by Mr. Syed Ismail of the New Pioneer Industrials Ltd. This concern has started a Woollen Factory for the manufacture of rugs and carpets and have invested nearly Rs. 4,00,000 on plants and buildings. Further expansions are contemplated. Messrs. B. K. Subbiah Chetty & Son who where the pioneers in this business have been enlarging the plant. Both these concerns have been availing themselves freely of Departmental help and the Central Industrial Workshop has been very useful in enabling them to get several parts of their machinery locally. The success of these concerns has excited much interest in this business and some other schemes of similar kind are under investigation. The Sri Krishnarajendra Mills have nearly completed the erection of the plant. Mr. V. Manickvelu Mudaliar's Woollen Mills are also under erection and it is expected that they will be able to start work in the near future. The Bangalore Spinning and Weaving Mills have under contemplation, it is understood, to start almost immediately a Weaving shed with about 100 looms and their request to have the water facilities tested is under investigation. The Gunjur Fibre Co., propose to extend their business by securing a much larger plot of land for the cultivation of Sisal hemp and have approached the Department for necessary help. The Mysore Development Syndicate have completed the factory for the manufacture of Asbestos and the operations of the Essenflour Company have been greatly expanded. The Scheme for the manufacture of whitelead is making rapid progress. The Mysore Paints have started operations on a larger scale. Mr. Vyasa Rao, formerly employed as Industrial Geologist has started a concern for the manufacture of fire and other bricks and one of the deposits of kaolin held by the Department has been relinquished in favour of the Company. I have already referred to the arrangements made by the Department to start a furniture factory on a large scale. Steps have also been taken to introduce the manufacture of Gold Lace. Machinery for a large filature is being constructed in the C. I. Workshop and a plant with 100 basins is likely to be erected in the course of the year. In spite of the adverse financial conditions there has been considerable industrial activity. There are other schemes which are being investigated and the present year is likely to witness the accomplishment of a few others.

Post and Telegraphs.

X. Government early in the year transferred all work in connection with the opening of new post and telegraph offices to the Director of Industries. I have been in close touch with the Presidents of District Boards and also with the two Superintendents of Post Offices and I am taking the necessary steps to see that the distribution of post offices serves the greatest convenience of the people. The main items that have engaged our attention during the year under this head are the utilisation of motor bus service for carrying of mails instead of jutkas, opening of new telegraph offices at Hole-Narsipur, Malavalli, Belur, Jagalur Chicknayakanhalli, Chennagiri, Chellakere and T. Narsipur, and closing down of certain of the experimental offices which are not necessary on administrative grounds, the transfers of some of the offices to other centres. The concentration of all correspondence relating to post offices and telegraphs with the Director of Industries has been of meterial help in getting many outstanding questions expeditiously settled and effecting suitable re-adjustments and expansions most conducive to the interests of the people. I am glad to acknowledge that I have received very hearty co-operation from the Superintendents of Post Offices and the Postal authorities have shown a ready willingness to meet all reasonable demands. Increase of salaries and other causes have greatly enhanced expenditure in the Postal Department and difficulty is experienced in complying with the demands of the people for additional facilities owing to financial limitations. The whole situation is being carefully examined and I have formulated certain proposals for determining general principles on which such extensions should be undertaken.

Weights and Measures.

XI. Steps have been taken to make an adequate supply of weights available. Negotiations are being carried on with the Premier Metal Factory for the manufacture of seamless measures through them. I have hopes that during the coming year we shall be able to make satisfactory arrangements for the supply of weights and measures required by the people.

Labour.

XII. During the year there has been no appreciable change in the attitude of the labour and there have been no strikes nor any other remarkable incidents. An anticipated strike in the Mysore Tannery was averted by the Managing Agents. The wages of labour are still high. An ordinary unskilled labourer is able to get 10 annas a day and the skilled labourer from 1 rupee to 2 rupees per day. There is no lack of employment. The hous-

ing conditions of labour are still unsatisfactory. Certain industrial concerns that are anxious to provide accommodation for their labour have some difficulty in securing suitable sites. Many of the old established concerns have made good profits and if sites are made available near the mills at a reasonable price it will be possible to arrange for the construction of suitable buildings. Requests made to the Department in this respect have always received my personal attention. The examination of the existing laws and rules in regard to factories and labour and bringing them into a line with the improvements proposed in British India is now engaging the attention of the department.

Commercial work.

XIII. Till the 1st July 1922 the Commercial section was under a separate Deputy Director who has been since transferred from the Department. The usual review of the Railborne Trade Statistics has been prepared in the Section. Some Statistics have been compiled in regard to road-borne Statistics. The section attended to several miscellaneous enquiries. After it came under my direct charge on the 1st July 1922 a thorough re-organisation has been attempted. The Commercial Museum which required to be better arranged has been temporarily closed. The Bureau of Commercial Information is being developed and steps are being taken to study the course of trade in each important commodity and collect information of commercial value systematically and make it available to the people. The library is being improved. The commercial work is now being attended to by my personal Assistant Mr. R. Ananthasubramaniam, whose long association with the department and intimate relations with commercial men peculiarly qualify him for that work.

The Agricultural conditions were fairly satisfactory but the violent fluctuations in price, the unsteadiness in exchange, the financial stringency have affected trade. Heavy speculations chiefly in piece goods has caused severe losses. The total value of imports and exports during the year were 24·68 crores respectively as against 28·83 crores in the previous year. The failure of cotton crop greatly affected the Chitaldrug District. The commodities in which the trade was good were mineral ores, oil seeds, copra and Jaggery. The adverse conditions of trade have severaley checked all enterprises during the year.

Conclusion.

XIV. The Department has now been in existence for more than a decade and disappointment is sometimes expressed that the results have been poor. The Department has been instrumental in introducing machinery on a fairly large scale throughout the State for dealing with agricultural products and the experience that it has gained has now placed it in a unique position to render advice in regard to such industries. It has introduced fly shuttle looms for handloom weaving on a scale much greater than anywhere else in British India designed new machinery for all processes connected with the Industry and introduced improvements in weaving which have resulted in much profit to the people of the State. It has secured a steady market for the articles manufactured by the artizans and helped the industries from being extinct. A large number of men have been trained in these industries in new designs, new methods of manufacturing the articles have been introduced. It has been instrumental in starting several large industries in the State which owe their inception in some way or other to its initiative. It maintains a well developed workshop which is able to undertake the manufacture of machinery of various kinds and the training of the people on a large scale. It has created a desire for industrial development and its assistance is sought more and more by the people in giving effect to their schemes. It has also been collecting information systematically on industrial schemes and subjects. Thus even its positve accomplishments are large. The present conditions are not altogether favorable to industrial Development. Nevertheless, steady progress is being made in investigating new schemes and keeping up the interest of the people and enlisting men of the proper type in the development of Industry. On assuming charge I made a detailed study of industrial conditions throughout the State and submitted a programme of work to Government which has been approved of by them. The reduction of grants is likely to affect the activities of the Department but the future is hopeful and there is ample work for the Department to keep it fully engaged for several years to come.

P. G. D'SOUZA,
Director of Industries and Commerce.

STATEMENT I.

Statement of loans applied for, sanctioned and otherwise disposed of during the year 1921-1922.

Serial No.	Particulars	Number of applications			Amount		Total
		H. P.	Loan	Total	H. P.	Loan	
					Rs.	Rs.	Rs.
1	Applications pending at the beginning of 1921-1922	2	2	4	43,200	5,500	48,700
2	Received during the year 1921-1922	17	3	20	63,670	4,000	67,670
3	Difference between the amount applied for and sanctioned	...	...	...	...	...	...
4	Total applications for disposal	19	5	24	1,06,870	9,500	1,16,370
5	Applications sanctioned by the Director	...	...	...	...	...	...
6	Applications sanctioned by the Chairman, Board of Industries and Commerce and Government	10	2	12	41,200	3,500	44,700
7	Applications pending sanction and enquiry	2	...	2	23,200	...	23,200
8	Applications rejected or withdrawn	7	3	10	42,470	6,000	48,470
9	Total ...	19	5	24	1,06,870	9,500	1,16,370
10	Applications sanctioned but subsequently withdrawn or cancelled ...	1	...	1	2,200	...	2,200
11	Total applications sanctioned during the year 1921-22 (Columns 5, 6, 10 and 11)	9	2	11	39,000	3,500	42,500

STATEMENT II.

List of Installations completed during the year 1921-1922.

Serial No.	District	Taluk	Village	Name of the party	Description of plant	Approximate cost	Remarks
						Rs.	
1	Chitaldrug ...	Challakere ...	Challakere ...	Mr. Anandathirtha Rao ...	Rice Mill ...	15,000	H. P.
2	Mysore ...	Seringapatam ...	Kirangur ...	,, Deviah ...	Do ...	9,000	Do
3	Shimoga ...	Sagar ...	Sagar ...	,, Vasudevasetti ...	Do ...	3,700	Do
4	Kadur ...	Chickmagalur ...	Chickmagalur ...	,, Abdul Mazeed Sab ...	Rotary oil Mills ...	2,500	Do
5	Chitaldrug ...	Davangere ...	Davangere ...	,, Basavannappa ...	Gin ...	5,000	Do
6	Bangalore ...	Bangalore ...	Bangalore ...	,, G. S. Mallappa ...	Oil Mill ...	3,000	Do
7	Do ...	Do ...	Do ...	,, V. S. Sambasivier ...	Manufacture of paints ...	3,000 for grinders and mixtures 4,000 for Electric Motor.	Do
8	Tumkur ...	Gubbi ...	Chelur ...	,, Seshappachetty ...	Weaving Factory ...	2,500	Loan.
9	Shimoga ...	Shimoga ...	Shimoga ...	,, H. V. Narayan Rao ...	For purchasing a Gas Engine	2,400	H. P.
10	Kolar ...	Kolar ...	Kolar ...	,, Venkataswami ...	Workshop ...	1,000	Loan.
11	Bangalore ...	Bangalore ...	Bangalore ...	,, S. M. Ismail ...	Motor for a Mortar Mill ...	1,600	H. P.

STATEMENT No. III.

List of installations pending at the end of the year 1921-22.

Serial No.	District	Taluk	Village	Name of the party	Description of the plant	Approximate cost	Remarks
						Rs.	
1	Bangalore ...	Bangalore ..	Bangalore ..	Mr. Padmanabiah	Oil Expeller	25,000	H. P.
2	Tumkur ...	Tumkur ...	Tumkur ...	Mr. M. L. Shame Gowda ...	Rice Mill	15,000	Loan.
3	do ..	do ..	do ..	The Mysore Economic Union ...	Dhupa seeds oil plant ...	30,000	Loan.
4	Shimoga ...	Shimoga ..	Shimoga ..	Mr. Venkappiah	Printing Press	1,500	H. P.
5	Mysore ...	Chamarajnagar	Chamarajnagar	,, Aminuddin Ali	Manufacture of Sodium Carbonate...	5,000	Loan.
6	Kolar ..	Chickaballapur	Chickaballapur	,, G. Naranappa	Silk Twisting Machine.. ...	500	H. P.
7	Shimoga ...	Shimoga ..	Shimoga ..	,, Zinullabuddinsab	Rice Mill	16,000	H. P.
8	Bangalore ...	Bangalore ..	Bangalore ..	,, G. V. Narasimah Iyengar ..	Electric Motor and Dynamo ..	2,000	H. P.
9	Mysore ...	Mysore ..	Mysore ..	,, Mylariah	Power Loom	2,000	H. P.

STATEMENT No. IV.

Statement showing the Treasury drawings and payments towards the loan.

	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	Total
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Net amount drawn from the Treasury.	55,528 12 0	76,912 8 0	83,352 8 0	42,404 12 0	1,85,620 8 0	93,629 4 0	1,23,468 10 10	76,122 2 1	49,935 7 1	7,86,274 8 0
Amount recovered towards principal.	.....	11,273 11 8	27,671 14 9	35,064 5 10	41,542 2 9	36,004 12 4	61,741 12 9	70,697 15 6	56,915 5 9	3,40,712 0 11
Amount recovered towards interest.	.....	2,008 0 5	3,200 4 6	3,552 11 8	4,344 1 1	5,992 5 9	10,439 15 10	11,943 10 8	20,039 9 8	61,520 11 2

T.P.

STATEMENT V.

Statement showing the demand collection and balance of loans for the year ending 30th June 1922.

Month and years	Demand							Collections		
	Arrears			Current			Total demand	Arrears		
	Principal	Interest	Total	Principal	Interest	Total		Principal	Interest	Total
1	2	3	4	5	6	7	8	9	10	11
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	s. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
July 1921 ...										
August ,, ...	74,830 2 6	14,818 0 0	89,648 2 6	22,821 9 1	4,236 1 3	27,057 10 4	.....	8,213 7 5	2,461 13 4	10,675 4 9
September ,, ...										
October ,, ...										
November ,, ...	.....	.....	.....	20,304 10 2	3,811 3 8	24,115 13 10	.....	16,787 5 0	3,044 0 1	19,831 5 1
December ,, ...										
January 1922 ...										
February ,, ...	.....	.....	.....	16,602 0 1	5,220 1 5	21,822 1 6	.....	6,124 2 2	442 3 0	6,566 5 2
March ,, ...										
April ,, ...										
May ,, ...	.....	.....	.....	16,306 7 10	11,087 9 1	27,394 0 11	.....	5,778 8 2	850 2 3	6,628 5 5
June ,, ...										
Total ...	74,830 2 6	14,818 0 0	89,648 2 6	76,034 11 2	24,354 15 5	1,00,389 10 7	1,90,037 13 1	36,903 1 9	6,798 2 8	43,701 4 5

Month and years	Collections			Total collection	1915-16			1916-17		
	Current									
	Principal	Interest	Total		Principal	Interest	Total	Principal	Interest	Total
	12	13	14	15	16	17	18	19	20	21
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
July 1921 ...										
August ,, ...	3,138 7 6	1,278 14 9	4,417 6 3	15,092 11 0	.....	.....	.....	.....	.....	.....
September ,, ...										
October ,, ...										
November ,, ...	13,682 8 8	3,157 2 8	16,839 10 11	36,671 0 0	.....	.....	.....	.....	.....	.....
December ,, ...										
January 1922 ...										
February ,, ...	1,301 6 4	1,754 13 7	3,056 8 11	9,622 9 1	.....	.....	.....	.....	.....	.....
March ,, ...										
April ,, ...										
May ,, ...	1,889 13 11	7,050 8 0	8,940 5 11	15,568 11 4	.....	.....	.....	.....	.....	.....
June ,, ...										
Total ...	20,012 4 0	13,241 7 0	33,253 11 0	76,954 15 5	630 8 7	.....	630 8 7	8,096 8 11	789 0 5	8,885 9 4

STATEMENT V.—*concld.*

Month and years	1917-18			1918-19			1919-20		
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total
	22	23	24	25	26	27	28	29	30
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
July 1921 ...									
August ,, ...									
September ,, ...									
October ,, ...									
November ,, ...									
December ,, ...									
January 1922 ...									
February ,, ...									
March ,, ...									
April ,, ...									
May ,, ...									
June ,, ...									
Total ...	3,759 1 0	844 4 6	4,603 5 6	3,210 1 0	2,358 13 10	5,568 14 10	53,124 0 7	2,256 12 2	7,570 12 9

Month and years	1920-21			1921-22			Total balance		
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total
	31	32	33	34	35	36	37	38	39
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
July 1921 ...									
August ,, ...									
September ,, ...									
October ,, ...									
November ,, ...									
December ,, ...									
January 1922 ...									
February ,, ...									
March ,, ...									
April ,, ...									
May ,, ...									
June ,, ...									
Total ...	24,837 12 2	3,259 7 5	29,597 3 7	48,487 1 8	9,739 5 5	58,226 7 1	93,835 1 11	19,247 11	1,13,082 13 8

STATEMENT NO. VI.

Statement showing the description and number of installations in each District as on 30th June 1922.

Serial No.	Name of Districts	Pumping Plant	Weaving Machine	Printing Machine	Electric Motor	Flour Mill	Rice Mill	Disintegrators	Lathes	Oil Expeller	Megger	Sugar-cane Plant	Workshop tools and Machinery	Furniture Factory	Litho Press	Soap Machinery	Button Machinery	Fruit Cultivation	Envelope cutting machine	Sawing Machine	Ginning Factory	Toy Works	Photographic Studio	Match Industry	Manufacture of sodium Carbonate	Tile Factory	Rotary Oil Mills	Decorticators	Pencil Factory	Dhupa Seeds Oil Plant	Total
1	Bangalore	6	3	4	13	12	3	5	2	2	1	1	1	1	2	1	1	1	1	...	1	...	...	...	...	...	1	...	...	...	61
2	Mysore	4	4	1	1	6	10	...	...	...	...	1	1	...	...	...	...	...	...	1	...	1	1	1	1	1	1	...	...	...	36
3	Tumkur	15	1	1	...	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	27
4	Shimoga	9	...	1	...	1	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	...	20
5	Chitaldrug	11	...	...	...	1	2	...	...	1	...	2	...	2	...	...	...	...	...	...	4	...	...	...	...	2	1	...	...	...	23
6	Kadur	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	3
7	Hassan	1	1	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	6
8	Kolar	5	...	...	...	1	2	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	13
	Total	51	9	7	14	26	27	5	2	3	...	8	3	3	2	1	1	1	1	1	5	1	1	1	1	5	6	1	1	1	189

STATEMENT NO. VII.

Sugar Mill account for the year 1921-22.

Name of Installation	Capital			Working Expenses			Total working charges	Milling charges		
	As per last year's report	Current year	Total	As per last year's report	Current year	Total		As per last year's report	Current year	Total
1. Agaram ...	18,690 6 8	.....	18,690 6 8	12,757 14 3	382 12 0	13,140 10 3	31,831 0 11	3,161 1 4	.....	3,161 1 4
2. Chennarayapatna ...	6,357 4 2	.....	6,357 4 2	667 18 1	60 12 9	728 9 10	7,085 14 0	.....	.....	.....
3. Shikarpur ...	17,482 8 2	.....	17,482 8 2	2,756 12 9	.....	2,756 12 9	20,189 4 11	.....	.....	.....
4. Chicksagre ...	10,428 2 8	.....	10,428 2 8	6,445 12 5	217 4 0	6,663 0 5	17,091 3 1	5,021 6 2	.....	5,021 6 2
5. Sakrepatna ...	.....	.....	.....	75 11 2	.....	.....	75 11 2	.....	.....	.....
Total	52,908 5 8	.....	52,908 5 8	22,703 15 8	660 12 9	23,364 12 5	76,273 2 1	8,182 7 6	.....	8,182 7 6

STATEMENT NO. VIII

Annual statement of the demonstration work in the Weaving Centres for the year 1921-22.—

No. of Centres at which looms were fitted up	No. of looms fitted up	No. of hands trained
13	520	587
Total ...		

Report on the working of the Commercial Section.

Mr. K. H. Ramayya continued to be Deputy Director of Commerce and *ex-officio* Registrar of Joint Stock Companies the offices were however removed in the month of March from a rented building in the City to the office-block near the Central Industrial Workshops. Amongst the Probationers, the services of Mr. H. K. Rama Iyengar, were loaned to the Bank of Mysore, Ltd.

The main work of the Commercial Section was the compiling and publication of statistics. The section is responsible for the publication of weekly prices in the local gazette and forwards after verification the fortnightly prices sent by Deputy Commissioners of Bangalore and Mysore to the Residency through the Secretariat. In addition it compiles the quarterly statement of Rail Borne Statistics and publishes in addition an annual Review thereof. The Review for the trade of the year 1920-21 is under print.

In consonance with the trade all over India, the trade in the State suffered very heavily. For the first time during seven years the total trade decreased by 2·5 crores in comparison with the previous year and further the whole decrease was under exports. This state of affairs is attributable to the following main causes :—The complete stoppage of the emergent demands created by war, the continuance of transport restrictions, the fluctuations in the exchange market, the lowering of the price levels for most of the commodities and the fall in the area under cultivation.

Agricultural Statistics.

The total area cropped during the year was 62,62,000 acres as against 65,41,000 acres in the year 1919-1920.

The principal groups of agricultural produce are Food grains, Oil seeds, Condiments and Spices, Sugar, Fibres, Drugs and Narcotics and miscellaneous crops

Under Food crops, the area cropped had risen from 50,87,000 to 54,56,000 acres in 1920, but declined to 51,58,000 acres in the year under review. The chief items making the three lakhs of acres decrease are Ragi the acreage under which fell by 1,39,000 Rice which decreased by 85,000 acres, Javar, the decrease in which was 55,000 acres and under Horsegram 44,000 acres.

The area under Oil seeds was 3,02,000 acres as against 2,84,000 in the previous year, the principal item being castor, 1,05,000 acres, Groundnut 73,000 acres and Gingelly 69,000 acres.

Spices were cultivated over 1,28,000 acres as against 1,41,000 in the previous year.

Sugar and Fibres, including Cotton, were grown over 1,15,000 acres as against 1,52,000 acres in 1919-20, this year's acreage being the lowest during the last six years.

Drugs and Narcotics were grown over 1,37,000 acres, Coffee occupying 1,06,000 acres and Tobacco 22,500.

Fodder crops, were grown in 39,000 acres, and among Miscellaneous crops, Cocoanuts 1,10,000 acres, Fruits and Vegetables 57,000 acres Food crops-83,000 acres, and non-food crops 98,000 acres.

General Summary.

The total trade of the state during the year amounted to Rs. 24.68 crores, in value this year, as against Rs. 26.83 crores in 1919-20, and Rs. 24.30 crores during the year previous.

The imports were valued at 13.44 crores, or an increase of just seven lakhs over the previous year's. But the exports amounted to only 11.24 crores as against Rs 13.45 crores in the previous year, due to a deficit of 2.36 crores of rupees under the head of Merchandise. The export of treasure was valued at Rs. 2.82 crores, or an increase of about Rs. 15 lakhs over the figures of the previous two years.

The total quantity of Merchandise, by weight transported during the year was 165.57 lakhs of manunds as against 150 lakhs maunds in the year previous. The imports weighed 116.55 lakhs of maunds as against 105 lakhs, and the exports weighed 49 lakhs of maunds, as against 45 lakhs of maunds in the previous year.

The large items under imports were Coal, weighing 36.51 lakhs of maunds, and Food-grains weighing 18.85 lakhs of maunds, and salt Timber, and Oil weighing 9,8 and five lakhs of maunds respectively.

The more weighty items under exports were Mineral Ores amounting to 11 lakhs of maunds, Oil seeds and Copra 7.93 lakhs of maunds, and Fruits and Vegetable and Jaggery and Sugar weighing 6.36 and 3 lakhs of maunds respectively. One curious feature in the list of leading articles in Merchandise, is the fall under food-grains from 11 lakhs of maunds exported in 1918-19 to 94,000 maunds in the year under review, and the rise in the export of Mineral Ores from 1.61 lakhs of maunds of 1919 to 11.23 lakhs of maunds during the year under review.

Weights and Measures.

In consultation with the Director of Industries an order for a 1,000 sets of standard weights were placed with the Central Industrial Workshop and these were supplied to the Deputy Commissioners for sale in the Districts. The question of manufacture of seamless measures is under discussion between the Government and the Premier Metal Factory and in the meanwhile a statement of requirements in the State is being obtained.

Commercial Museum.

The question of the transfer of the Museum to Bangalore engaged the attention of this section. Detailed proposals were submitted to Government urging the necessity for such transfer and asking for its location in the Old Power House near the City Market. Due to financial stringency, Government had ordered the reduction of the establishment in the Museum and the question of its location temporarily in the Chamarajendra Technical Institute without necessitating the employment of any additional hands is under the consideration of the Government.

Bureau of Commercial Information Library etc.

During the year, the Bureau furnished information to 150 enquirers and since the transfer of its habitation to the Head Office, the Library of both the offices were amalgamated and the Bureau is now compiling a card index of all files relating to Industrial and Commercial Information.

General.

Of the Associations that were started last year, the Grain Merchants' Association is doing useful work, the Piece Goods Merchants' Association is however dormant. The selection of a suitable site for the Commercial Museum is also engaging our attention.

R. ANANTASUBRAMANIAM,
For Deputy Director.

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